



Changing Seasons and Changing Perceptions

Making a Case for Growing Season
Prescribed Fire in Indiana

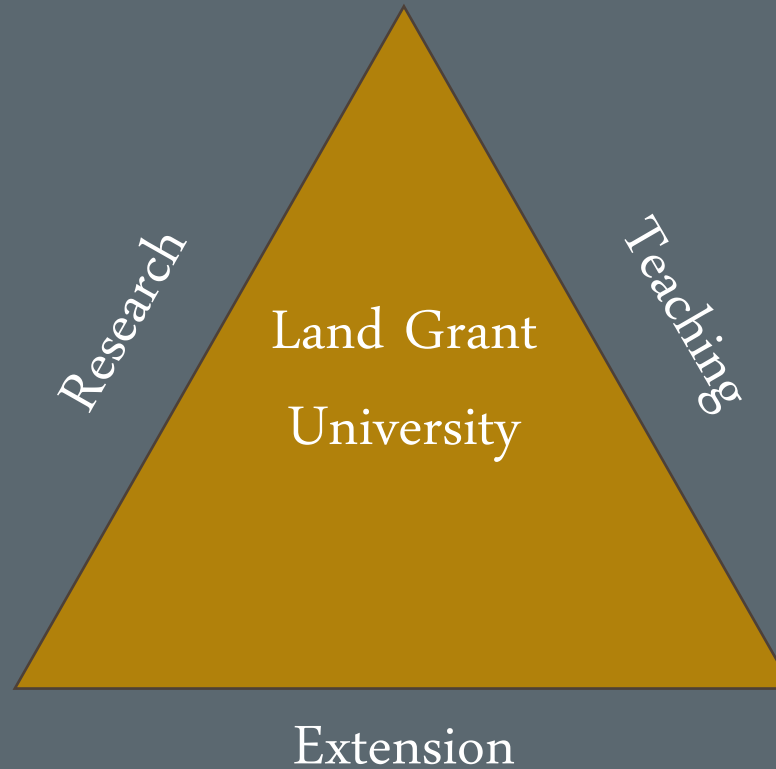
Jarred Brooke

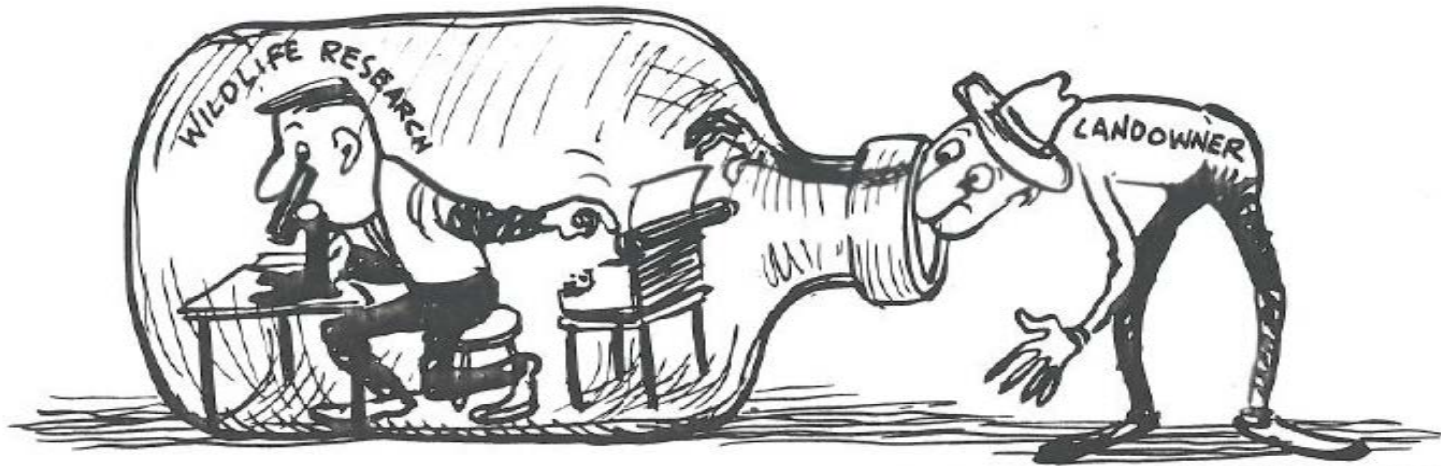
Extension Wildlife Specialist

Purdue University

Forestry and Natural Resources Department

...Through the Land Grant Mission





Why growing season fire?

Crossville, TN



Why growing season fire?

Maynardville, TN

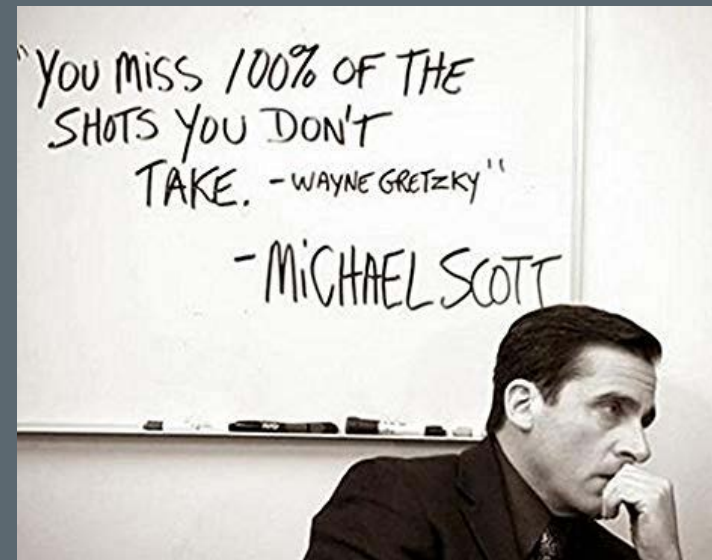


Missed opportunities?

- Research suggests it is a valuable tool

But,

- Is it being used?
- If not, why?
- How can we share the story?



Fast Forward....

Started at Purdue in Fall 2016

INPFC forming ~2017

Opportunity to learn more about Rx fire in IN

2018 IN Rx Fire Use Survey

2018 IN Rx Fire Use Survey

How is Rx fire currently being used in IN?

- 52 Questions
- 101 respondents
 - 43 State agency staff
 - 19 Federal agency staff
 - 15 NGO + Land trust staff
 - 14 Private consultants
 - 6 Private landowners
 - 4 University staff

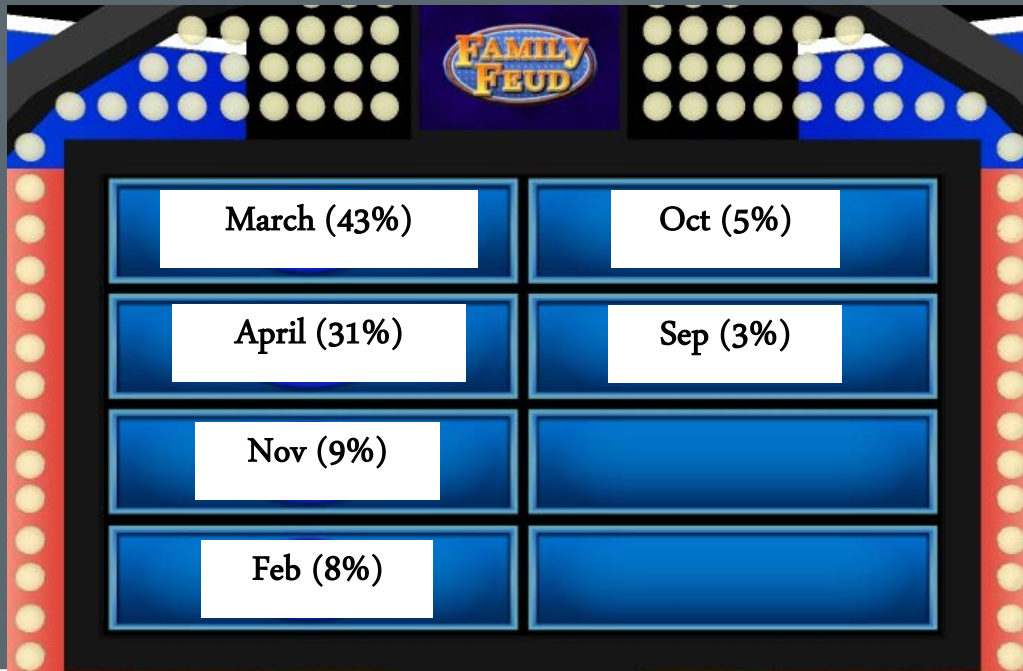
Fire Seasonality

Family Feud Style...



Rx Fire Survey says...

Indicate what percentage of your prescribed fires occur in each month...



Nov – Mar (60%)

Nov – Apr (91%)

Aug – Oct (10%)

But, wait there's more...

Rx Fire Survey says...

What factors most influence the time of year you burn?

Top 3 reasons

1. Weather (76%)
2. Effects on desirable plants (63%)*
3. Effects on undesirable plants (44%)*

Rx Fire Survey says...

What are barriers to conduct Rx fire?

Top 3 reasons

1. Acceptable burn weather (94%)
2. Smoke management (69%)
3. Time (63%)

Rx Fire Survey says...

What Rx fire topics are you most interested in learning about?

Top 3 topics

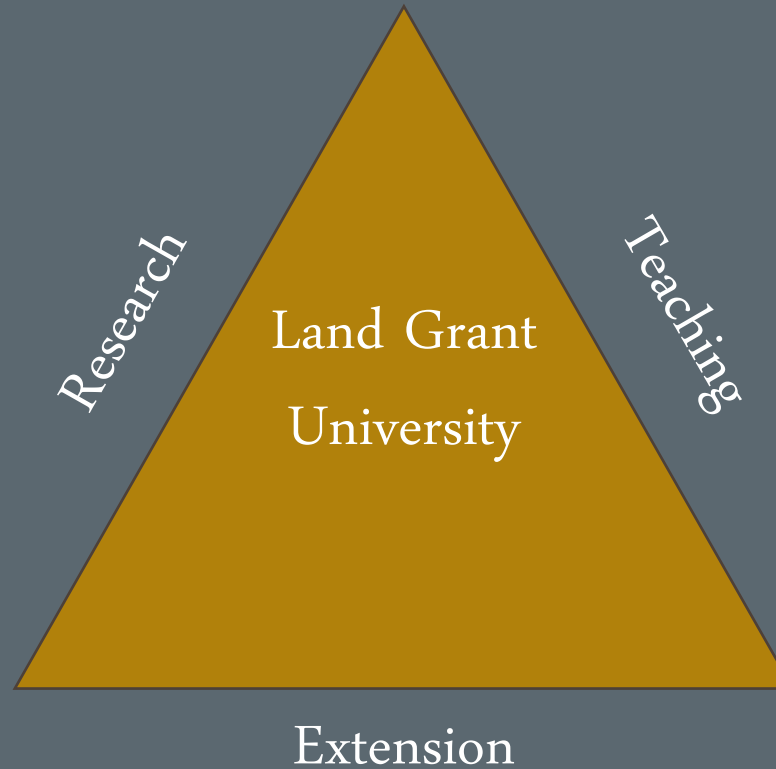
1. Effects of fire on wildlife (84%)
2. Effects of seasonality of fire (74%)
3. Fire in forested ecosystems (74%)

What to make of this?

Changing perceptions

- Opportunities to overcome barriers
 - Time and acceptable weather
- Knowledge gaps
 - 74% interested in learning more about fire seasonality
- Missed opportunities
 - Only 10% of fire during late-growing season

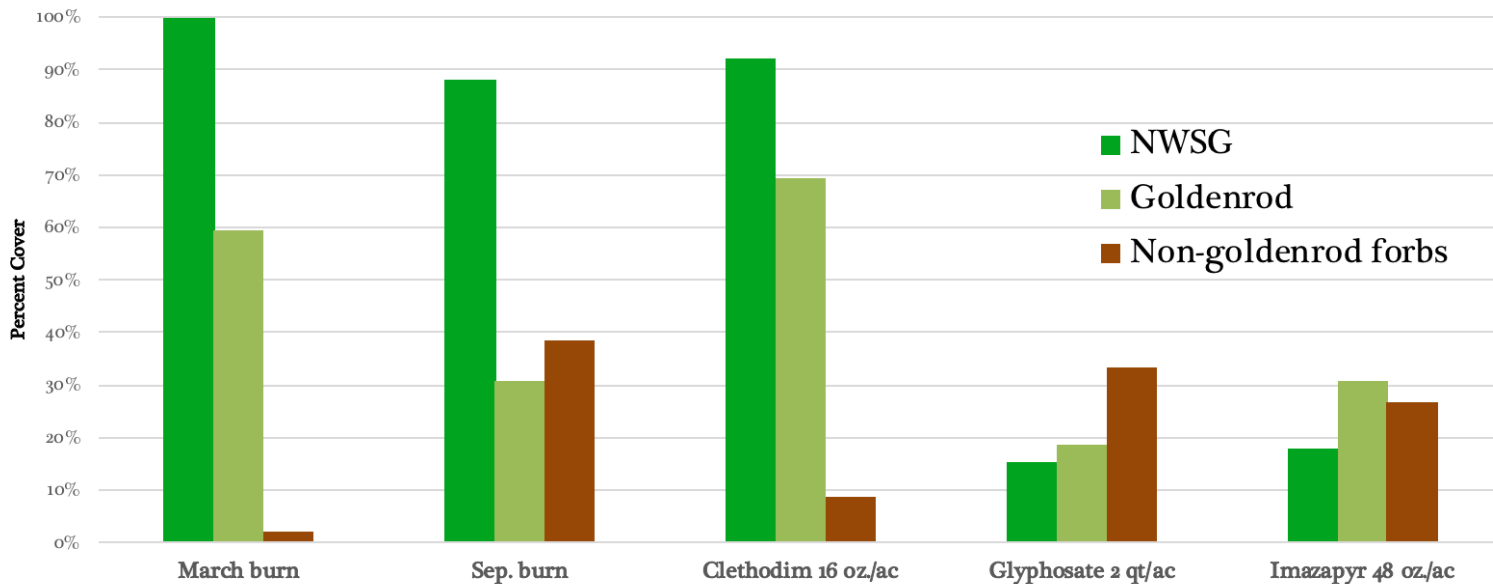
...Through the Land Grant Mission



Research

The effects of CRP mid-contract management on NWSG stands

Percent NWSG and Forbs after treatment, PWA, 2017



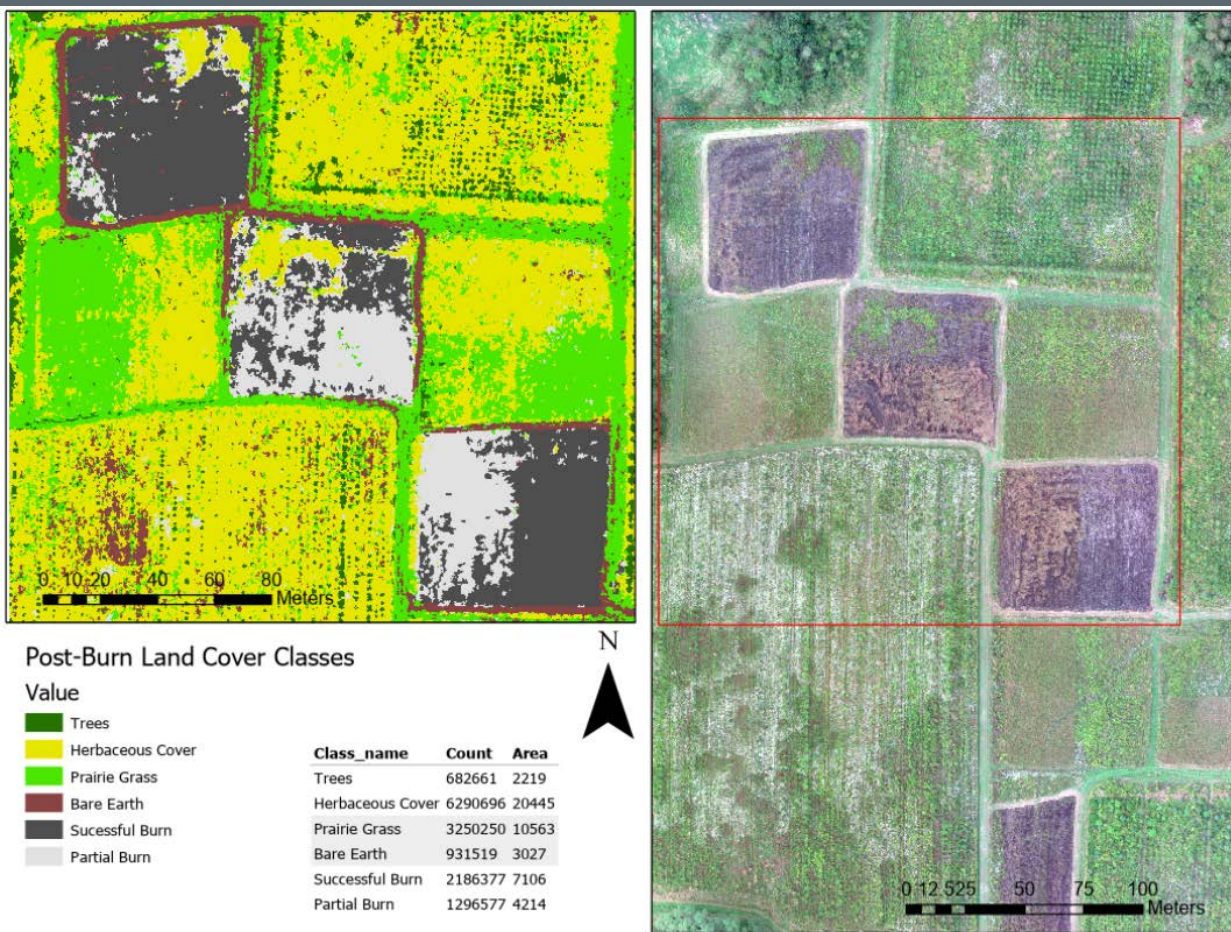
Research

Using UAVs to evaluate the effects of Rx fire seasonality



Research

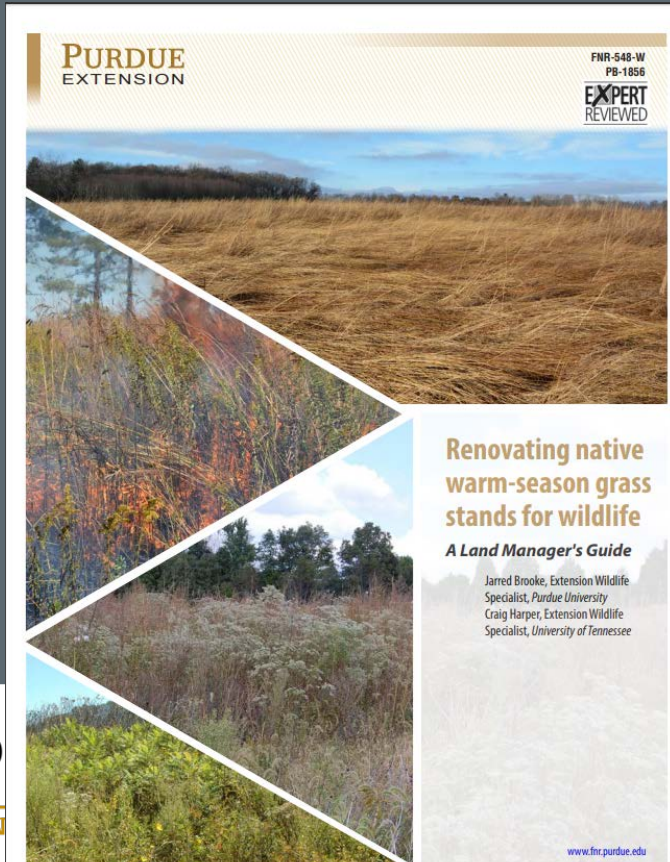
Using UAVs to evaluate the impact of Rx fire seasonality



<https://storymaps.arcgis.com/stories/cc0d203d67a54c7eb81ee36f379a6ee3>

Extension – sharing the story

Managing native warm-season grass stands for wildlife: a land manager's guide



Extension – sharing the story

2019 Indiana Prescribed Fire Council Meeting



2019 INDIANA PRESCRIBED FIRE COUNCIL ANNUAL MEETING

AGENDA

- 9:00-9:30 - Welcome & INPFC Update
Brock Jones, IDEM
- 9:30-10:00 - Indiana Rx Fire Regulations
Brock Jones, IDEM
- 10:00-10:30 - Rx Fire and T&E Species Regulations
Andy King, USFWS
- 10:45-11:15 - Rx Fire and Timber Value Research
Shannon Status, WREC
- 11:15-11:45 - Seasonal Effects of Rx Fire
Jack McGowan-Stinski, Lake States Fire
- 11:45-12:30 - Lunch (provided)
- 12:30-1:15 - Committee meetings
Research, education, and training
- 1:15-2:00 - Fire Council Business Meeting
- 2:00-3:00 - Rx Fire field tour

FRIDAY MAY 24, 2019
9 AM - 3 PM
JOHN S. WRIGHT CENTER
1007 N 725 W.
WEST LAFAYETTE, IN 47906

COST \$25 (LUNCH INCLUDED)

REGISTER HERE

[HTTP://WWW.CVENT.COM/D/P6Q3MN](http://www.cvent.com/d/p6q3mn)

CONTACT INFORMATION

GUS NYBERG
INPFC VICE-CHAIR

GNYBERG@NICHESLANDTRUST.ORG



PURDUE
UNIVERSITY

Extension
FORESTRY AND NATURAL RESOURCES

Seasonality of Fire: *Matching Burn Timing with Fire Effects*



Jack McGowan-Stinski
Program Manager
<http://lakestatesfiresci.net/index.html>
mcgowan-stinski.1@osu.edu



Extension – sharing the story

Conservation Partnership Training: Native Warm-Season Grass Establishment & Management



Extension – sharing the story

Effects of Fire Seasonality on Reconstructed Prairies in Indiana (September 2019)

Dormant Season & Growing Season Fire
In Reconstructed Tallgrass Prairies

Sept. 17, West Lafayette, Indiana



Top Photo — courtesy Jarred Brooke, Purdue Extension

Lower photos - courtesy John Taylor, Ball State University

Hosts and Sponsors

Purdue Extension —Forestry and Natural Resources
Ball State University Field Station & Environmental Ed. Center
NICHS Land Trust
Indiana Prescribed Fire Council



Extension – sharing the story

Learn-N-Burn: Landowner Rx Fire Workshops



LEARN-TO-BURN: GRASSLAND MANAGEMENT WORKSHOP

Do you have CRP fields or other native warm-season grass stands on your property? Interested in learning about prescribed fire and other grassland management tools? This workshop will cover CRP and Mid-Contract Management options, including herbicide, interseeding, and disking, as well as prescribed fire planning, safety, equipment and a demonstration burn (weather permitting).

August 25th, 2018

9:00 am—2:00 pm EDT

**Wright Forestry Center, Martell Forest
1007 N 725 W, West Lafayette, IN**

Registration—\$10 per person (includes lunch).

Visit <https://www.eventbrite.com> and search Learn to Burn.

Space is limited. Please register by August 15, 2018.

For more information contact:

Angie Miller, Tippecanoe County SWCD, at 765-474-9992, ext 4006 or at angela.garcia-miller@in.nacdn.net



PURDUE EXTENSION



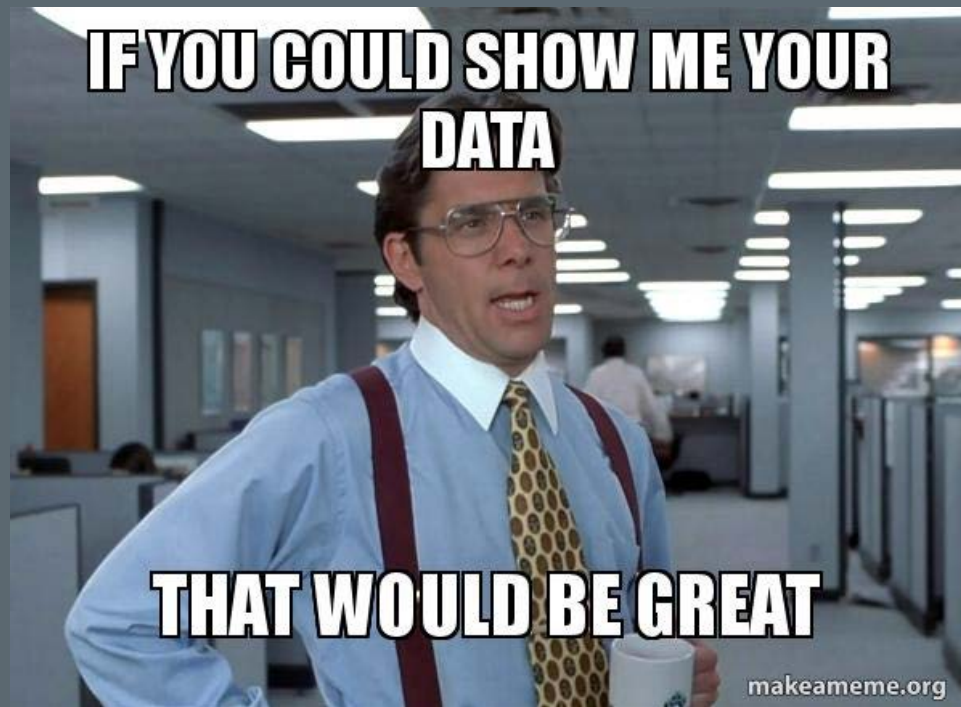
DNR
Indiana Department of
Natural Resources

All programs and services of the Tippecanoe SWCD are offered on a nondiscriminatory basis without regard to race, color, national origin, religion, sex, age, marital status or handicap.



Is it working?

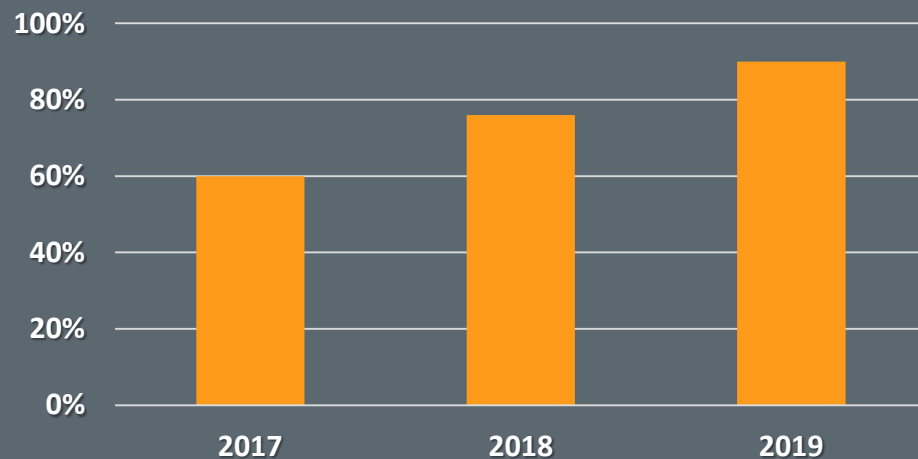
- The data says...



Is it working?

Conservation Partnership Trainings

Would you recommend prescribed fire outside of the late-dormant season?



Workshop Quotes

Most important thing you will take away from the workshop

- *Late-growing season burns are very valuable options*
- *Growing season fire can be important in native stand*
- *Burning in Aug-Sep is a useful tool*
- *Timing of fire*

Is it working?

Seasonality of Fire Field Day – knowledge change

Change in knowledge following the Seasonality of Fire Workshop



12% - 42% knowledge increase

1 (No knowledge)

(Very knowledgeable)

5

Is it working?

Learn-N-Burn Landowner Workshops

How knowledgeable are you about how burning during different seasons impacts plants (1-5 scale)?

- Before workshop = 1.78
- After workshop = 4.13
- 148% knowledge increase

A group of approximately 20 people, mostly men in work clothes and hats, are gathered in a field of tall grass and brush. They are looking towards a young tree on the right side of the frame. Some are holding papers or clipboards. The background shows a line of trees under a cloudy sky.

Is it working?

Increasing knowledge about growing season fire

Becoming more of an acceptable practice

Will that translate to more Rx fire in growing season?

stay tuned



In summary...

Growing season fire has a place

More research will help us better understand that place

BUT

“Science is not finished until it’s communicated”
- Sir Mark Walport

Important to share the science to share the story

Indiana Prescribed Fire Council

inpfc.org

Facebook - <https://www.facebook.com/IndianaFire/>

Contact

jmbrooke@purdue.edu

Social Media



@PurdueWildlifer



Forestry and Natural Resources
COLLEGE OF AGRICULTURE



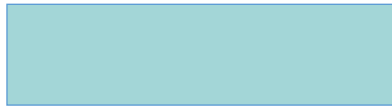


CAMPUS GOLD

(main Purdue color along with black and white)



YELLOW WALK



AMELIA SKY BLUE



SLAYTER SKY BLUE



FOUNTAIN RUN TEAL



EVER TRUE BLUE



MOON DUST GRAY



SPRING FEST GREEN



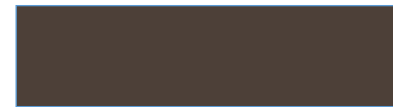
CELERY BOG GREEN



ROSS-ADE GREEN



LAND-GRANT GREEN



COAL GRAY



MACKEY ORANGE



BELL TOWER BRICK



OAKEN BUCKET BROWN



PAPPY'S PURPLE

Selected Purdue Marketing & Media primary and secondary colors.
For others, visit www.purdue.edu/brand/visual/colors.html