

# ***If your objective is to manage for...***

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## **Tree and Brush control**

- Late spring and summer fires work best, fall burns are not as effective
- Repeated fires are needed to keep re-sprouting brush under control
- Combine fire with mechanical removal for maximum effect

## **Maintenance of Native Plant Communities**

- Late spring fires encourage warm season native grasses
- Summer and fall fires encourage native wildflowers

## **Improvement of Wildlife Habitat**

- Variations in prescribed burning practice may be necessary. Early spring, late spring, summer, and fall fires all affect wildlife habitat in different ways. Varying fire treatments from year to year will ensure that wildlife habitat and food availability are maximized.

## **Eastern Red Cedar control**

- Fall or spring fires may provide the best control because eastern red cedar foliage is drier and more flammable after the fall freeze and before spring growth begins
  - ❖ ***Did you know just 250 ERC trees/acre cuts forage production by 1000 lbs/acre!!***
- For more information see: Management of Eastern Redcedar on Grasslands NebGuide G96-1308

## **Sumac control**

- Cut in July or August repeatedly
- Fire alone is ineffective because while aerial stems may be top-killed, the plant will resprout from root buds. However, fire can reduce canopy height and ease herbicide application. Summer fires have the greatest impact on reducing Sumac canopy.

## **Leafy Spurge control**

- Burning actually stimulates growth
- Apply chemicals or use beetles. (Fire application before releasing beetles is beneficial)
- Uniform regrowth after a fire may allow easier herbicide application



### **Sweet Clover control**

- Back-to-back burns. Fall or spring burn followed the next year by a *late spring* burn (the first burn causes an increase in seed germination, and the second burn prevents flowering in the second year)

### **Musk Thistle control**

- Burn as late as possible to control flowering

### **Canada Thistle control**

- Late spring burns (May-June)
- Thistles may increase the first year following a May burn, but will decline within two growing seasons; immediate reductions in thistles occur following a June burn
- Burn every year for 3 years
- Early spring burns can increase sprouting and reproduction

### **Smooth Brome control**

- Late spring burns
- Burn at time of tiller elongation to reduce tiller density and biomass

### **Reed Canary Grass control**

- Burn in late fall or early spring for several years (5-6 years)
- Burning during growing season may reduce vigor and help control spread

### **Kentucky Bluegrass control**

- Late spring burns

### **Crown Vetch control**

- Late spring burns to control seedlings, but adult plants will re-sprout
- Follow burning with herbicide treatment on regrowth



# What are the steps to implementing prescribed fire?

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## Planning

- Define your objectives. Why are you burning?
- Develop a Prescribed Burn Plan and Burn Prescription for the burn (See example *Prescribed Burn Plan* from *The Nature Conservancy*. Matt Graeve of TNC, or your local NRCS office can help you develop the appropriate plan.)
  - Define unit to be burned
  - Identify parties to be notified of prescribed burn
  - Prepare maps of burn site
  - Define burn goals and objectives
  - Define conditions necessary to accomplish objectives
  - Explain equipment to be used
  - Outline procedures to be followed
  - Spell out contingency plan(s)
  - Understand legal considerations

## Preparation

- Train and inform crew of safety measures and proper prescribed fire management
- Prepare equipment
- Prepare fire breaks
- Manipulate fuels if necessary

## Fire Implementation

- Review plan with crew (See *Pre-burn Checklist and Crew Briefing*)
- Notify:
  - Neighbors
  - Fire Department
- Preview site with crew
- Test fire
- Ignite
- Hold
- Mop-up
- Debrief

## Evaluation

- Post fire evaluation
  - Were the goals and objectives of the fire accomplished?
  - Was the fire conducted safely and according to the plan?
- Refine the plan
- Schedule next burn



## PRE-BURN CHECKLIST AND CREW BRIEFING

Preserve:

Fire Unit:

Date:

### A. PRIOR TO CREW BRIEFING

- Fire Unit is as described in plan.
- Required firebreaks complete.
- Permits obtained. Give permit #'s:
- Official and neighbor notifications complete.
- Required equipment is on-site and functioning.
- Planned ignition and containment methods are appropriate.
- List of emergency phone numbers are in each vehicle.
- Planned contingencies and mop-up are appropriate.

### B. CREW BRIEFING

- Each crew member has a burn unit map.
- Fire Unit size and boundaries discussed.
- Fire Unit hazards discussed.
- Purpose of burn.
- Anticipated fire and smoke behavior.
- Review of equipment and troubleshooting.
- Check crew qualifications.
- Review organization of crew and assignments.
- Review methods of ignition, holding, mop-up, communications.
- Review contact with the public; traffic concerns.
- Location of vehicles, keys, and nearest phone.
- Location of back-up equipment, supplies, and water.
- Review all contingencies including escape routes.
- Review mop-up procedures.
- Answer questions from crew.
- Give crew members the opportunity to decline participation.

### C. PRIOR TO IGNITION

- Weather and fuel conditions are within prescriptions.
- Weather forecast, obtained within two hours of ignition, says prescribed weather will hold for two hours past expected duration of burn.
- Crew members have required protective clothing.
- Crew members have matches.
- Conduct test burn.

### D. BEFORE LEAVING BURN UNIT

- Mop-up completed as described in prescription.
- Next morning inspection arranged.
- Notifications of completed burn (if required).

### E. NOTE ANY MODIFICATIONS TO RX

Fire Leader:

Date:



# Safety, Safety, Safety....

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Prescribed fire is a land management tool that must be used with respect and understanding. Careful planning and specific conditions must be met before it is safe to implement the burn. Please take the necessary precautions and training to ensure the safety and protection of everyone involved, and those not directly involved.

## Personal Safety

- Those assisting with the burn must be familiar with basic prescribed burning and fire fighting techniques. (See *Prescribed Fire Training for Landowners*)
- Personnel with known health conditions such as high blood pressure, heart conditions, and respiratory diseases must not participate.
- Clothing must be of natural fiber (cotton, wool) that covers the body, arms and legs. Wear a hat, gloves, and hightop boots. NOMEX™ suits are recommended as they are made of synthetic fibers designed for fire fighting.

## Public Safety

- Notify neighbors, fire department, and law officials of plans to burn.

## Prescribed Fire Planning

- Planning is the key to having a safe and successful burn. Take time and use available resources to properly plan for a prescribed fire.
- Ensure all equipment is operating correctly and safely.
- Understand situations that may pose special hazards such as roads and highways.

## Weather

- Determine if weather conditions are within acceptable limits.

Weather Factor	Preferred Range	Limit
Wind Speed	5-15 mph	20 mph
Wind Direction	Steady, from one direction	
Relative Humidity	40-70%	>30%
Temperature	55° – 80°F	50° – 85°F
Cloud Cover	Clear – 70% cover	
Ceiling	2000 ft- unlimited	

## Safety during the Burn

- Review burn plan with the crew, designate individual responsibilities, and brief on communication procedures for notifying emergency personnel.
- Plan for easy communication with burn crew and with a location that can quickly request for emergency assistance. Use CBs or cell phones.
- Be aware of possible emergency situations.
- Observe any changes in the weather and keep updated on forecasts.



# Seeing Fire Works....

## Planning



Define your objectives... why do you want to burn? Stating your objectives is also an important part of the burn plan.

## Preparation



Inform crew of safety measures and proper prescribed fire management.



Check weather conditions to ensure they are within acceptable limits.



Prepare fire breaks.  
(There are a number of ways to prepare a fire break, creating a black line is one.)



## Fire Implementation



Ignite fire.

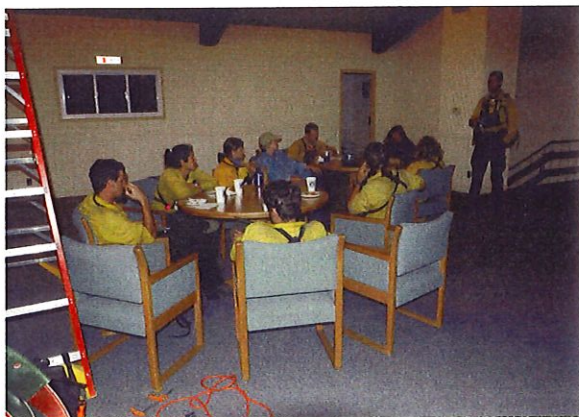


Hold fire.



Mop-up by removing burning material along or near control line. Monitor hot-spots after fire is completed.

## Evaluation



Evaluate if goals and objectives were accomplished and if the burn plan was followed accordingly.