PRESCRIBED FIRE BASICS
OBJECTIVES

- Introduction to prescribed fire
- How it benefits the landowner
- How it benefits wildlife habitats and livestock production
A prescribed fire, or prescribed burn, is a land management practice that is intentionally applied with proper timing to vegetation to meet the management needs.

There are several pre-burn considerations that must be in place as part of the prescription in order to burn.
WHAT IS A PRESCRIBED FIRE?

- Prescribed fire can also be used in addition to other management practices such as chemical and/or mechanical removal of vegetation to provide the best results according to the goals of the management plan.

- To have a successful burn, proper weather conditions and a detailed burn plan with management goals is necessary.

- Landowners have chosen to burn because it is effective without being too costly and labor intensive.
BENEFITS OF PRESCRIBED FIRE

There are many benefits to you as the landowner and to your livestock and wildlife such as:

- Cost efficiency
- Manage or suppress woody and herbaceous plants
- Improve grazing distribution
- Reduce wildfire hazards
- Improve habitats for wildlife species
- Increase livestock production
- Increases forage production for livestock
Prescribed fires are considered as one of the more cost-efficient land management methods in comparison to mechanical or chemical processes.

While burning alone may not completely remove the targeted vegetation, it should be combined with a chemical or mechanical method of eradication.

In addition to this, prescribed fire is not just a one-time thing. As the landowner, you should plan to have a follow-up burn not too far down the road.
Prescribed Fire provides:

- Improved grazing distribution throughout the pasture.
  - Animals will follow a burn because of the increase in nutritive value and palatability in the forage.

- Improved forage production in the burned pasture.
  - Burning has been shown to increase the amount of available forage, an improved herbaceous composition, and improved forage quality.
Prescribed fire provides:

- Improved habitat for feeding, escape, cover, and ground nesting sites.
  - Burning promotes growth of desirable forbs and seed-producing grasses.
- White-tailed deer populations have shown to increase dramatically after burning if adequate cover is maintained.
- An increase in nutrient content in the soil(?) occurs, thus forage is more desirable.
  - This is only for about six months after burning.
Plant response after a fire is influenced by the intensity of the fire, the condition of the plants at the time of the burn (stage of growth), weather conditions, and grazing management decisions following the fire.

- Factors that determine fire intensity are fuel quantity and continuity, air temperature, humidity, wind speed, soil moisture, and direction of the flame front movement relative to the wind.
- Generally, the intensity of the fire will increase with a greater quantity of continuous fuel, higher temperatures and wind speed, and lower humidity and soil moisture. Flames moving with the wind (headfire) tend to be more intense than flames moving against (backfire).
The burn plan identifies the recommended guidelines, procedures, preparations and resources needed for conducting a burn.

- There should be a plan in place if in the event the fire escapes the prescription area.

- The plan should describe ignition procedures, location of control crews, and location of fire lines.

- Be sure to discuss all plans with your fire chief in advance of your burn, including the date and time of the burn.

- Other important contacts before the burn are the Texas Air Quality Board, your neighbors, the sheriff’s office, Department of Public Safety, county commissioner’s office, oil and gas lessees, and hunters.
IDEAL BURN CONDITIONS

• Wind Speed: 5-12 mph
• Relative Humidity: 40-70%
• Temperature: 55-80 °F

• Weather conditions should be observed for before, during, and after the burn.
  • The intensity of the burn is affected greatly by these conditions, thus affecting the overall outcome of the burn.

• For forecasts and other fire weather reports, the National Weather Service offers this online at www.weather.gov/fire/
After the prescribed fire is complete, the first question to be answered is “Did we accomplish our goals of this burn?”

- “Was it a safe burn?”
- “Were the target species managed?”
- “Will there need to be a second burn?”
Before Prescribed Fire, McCulloch Co., July 20, 2017
After Prescribed Fire, McCulloch County, July 20, 2017
July 20, 2017, Prescribed Fire, McCulloch County
Picture Taken August 1, 2017
Prescribed Fire, McCulloch County, March 10, 2017
March 10, 2017, Prescribed Fire, McCulloch County, Picture Taken September 1, 2017
ADDITIONAL RESOURCES

- West Texas Rangelands YouTube
  - https://www.youtube.com/channel/UCIqIOWL5fowVEeW56YdHfdA
- TPWD Prescribed Burn Associations
- Texas A&M AgriLife Extension Service
  - https://agrilifeextension.tamu.edu/