



Grassland wildfire a greater threat than many realize

Scott Cotton

Wildfire is a reality in the western United States and can happen almost any time of year if conditions are in place. Brush and grass fires account for more than 78% of wildfires.

Most grass fires occur at least partially on private ground, and landowners often address the wildfire personally until local fire units can respond. Fires on ground overseen by federal agencies trigger responses by large, well-trained fire-fighting systems.

Don't Underestimate Wildfire Risks

In cases where landowners and others try to control grass wildfires, the risk of injury and death is over 300 percent higher than trained fire teams for a number of reasons, including knowledge of fire behavior, access to proper fire-fighting equipment, water, clothing and other gear.

People often underestimate grass fire risks. Being aware of some factors related to wildfire can help you better judge these risks.

Going after a wildfire can place you at great risk if you have the

wrong equipment or clothing. All clothing made of nylon, polyester, Gore-Tex and other plastic derivatives will either catch fire, melt onto skin, or both. Wearing fire-resistant clothing such as treated canvas or "nomex" can reduce the chance of clothing-related injury. Cotton clothing will burn but do not usually cling onto skin. Quality leather footwear with hard rubber soles and leather gloves are best if professional fire clothing isn't available. Jewelry, cell phones, and other conveniences should be left off the fire line.

If around a fire make sure vehicles have sufficient ground clearance and no fuel/oil residue or leaks!

Wildfires can move up to 30 miles per hour. Getting around a fire may not be easy, depending on the movement, speed, and width of the fire. Fires move with the wind but can alter their own speed with certain geographic features. Fires tend to create a draft in front of the active burn line that preheats and pre-dries the next fuel they will hit. These factors can trap individuals in a ring of

fire with no escape route.

Since fires require oxygen, heat, and fuel, a wildfire moving through heavy grass and brush fuel can generate a flame wall height up to 20-50 foot. Smoke from the wildfire will precede the front. Most fire-associated deaths on grass wildfires are related to smoke inhalation and heat stress. **STAY OUT OF THE SMOKE!** Wildfires will also send embers and chunks of burning debris high into the air and start additional "hot spots" as far as ¼ to 2 miles downwind. These hotspots can grow and develop into a second fire front, trapping unsuspecting firefighters.

Fighting from the Burned Side

Firefighters strive to fight fire from the burned side of the front (often referred to as "the black"). The burned area is usually upwind, although this can change. This area already has a reduced fuel availability so that if a fire turns, the flames will be greatly reduced. Bear in mind driving or traveling on "the black" can be challenging since the vegetation that stabilized the soil has been

removed. Anyone driving in these areas should have help available to pull their vehicles back if needed. Anyone traveling in “the black” should also be aware of and on the lookout for hot spots that can burn through clothing or footwear.

Firefighters address the ends of the fire first unless critical structures are threatened. Firefighters look up every few minutes to see what all segments of the fire are doing. It’s best to have one or more spotters working from a vantage point at a distance. All those working on a fire should stay in contact with them. Uninformed is at risk!

Fires will change intensity and speed with varying fuel, wind, and slope. The pre-draft factor makes fires move faster upslope in many cases. The spotters should be in areas that have already burned (the black) also.

Final Thoughts

Don’t take chances. Fire is impersonal and unforgiving. If authorities indicate you should evacuate – take it very seriously! If you have a high risk of wildfires in your area and are far from fire teams, I suggest you visit with them and possibly attend a Basic Wildfire 130-230 class to learn important fire-related skills. Your local fire marshal can help mitigate fire risks on your property. Contact your local county fire department or check <http://bit.ly/wyowildfiretraining> for training opportunities

This article is not a guide to fighting wildfire. Its intent is to point out some grassland wildfire safety risks and some ways firefighters approach them.



Create defensible zones around property

Wyoming’s wildfire season usually ranges from March-November. In 2017, there were 71,499 wildfires in the nation with 599 of them in Wyoming. Acreage loss during the year included 10 million acres nationally and 90,115 acres in Wyoming.

Creating defensible zones on a property is one of the best ways a landowner can mitigate loss due to wildfire. (Barnyardsandbackyards.com under “Wildfire” has a number of materials that can help make a home and landscape more resistant to wildfire.) Emergency or wildfire personnel in communities across Wyoming also have access to other information and resources to help landowners plan for wildfire.

Have an evacuation plan in place for your property and ensure everyone is familiar with the plan. Have a water source nearby and remove as many ignition sources as possible. If far from professional wildfire fighting assistance, having wildfire equipment on site and taking some wildfire fighting training can be useful.

Understanding the fuel growth cycle is helpful in understanding wildfire occurrence. In years that we have early precipitation and corresponding grass growth followed by dry heat periods, the vegetation becomes “flash fuel” and ignites easily and burns hot and fast. This can be compounded by windy days and periodic thunderstorms. The National Weather Service documented 2,803 lightning-triggered wildfires within the Great Plains and Northern Plains/Rockies during 2017 that burned 816,000 acres. Once again, 78 percent of these were grass fires. Watch the weather!

If you see or smell smoke – safely check it out. Call authorities for help if you have a wildfire. Tell them the location of the fire, how fast it is moving and in which direction, if possible. If local fire departments are not on the scene yet and you intend to “defend in place,” get assistance from neighbors and make everyone’s personal safety priority No. 1.

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