

# Backcountry Blaze

by [Ryan T. Bell](#)

**When wildfire strikes, follow these 4 tips to escape the backcountry unscathed.**



**Fact:** Wildfire can outrun a horse.

**Fact:** The temperature of a grassfire can reach upwards of one thousand degrees.

**Fact:** Smoke inhalation is the greatest threat wildfire poses to equine health.

If these fire facts don't grab your attention, here's one that will. 2010 was forecasted to be one of the worst fire seasons in recent

history. Bizarre weather patterns, drought, and forests ravaged by pine beetle infestation made Smokey a nervous bear that summer.

I spoke with five experts to learn what steps a horseman should take if a wildfire breaks out while he is in the backcountry.

### **Step 1. Size up**

“Get your wits about you,” says Don Copple, a fire supervisor in southwest Montana. “If you just take off running, you could end up in a dangerous situation.”

When you see or smell smoke, the first thing to do is locate the source of the fire. Ride to high, open ground and survey the situation. Firefighters call this step “size up.”

“The three things to look for are fuels, weather and topography,” Copple says.

The term “fuels” refers to anything that’s flammable, such as trees, grass or sagebrush. Each fuel type behaves differently. Trees, for example, carry fire upwards into the “canopy” of a forest. Ground-level fuels, on the other hand, “roll” across the ground. By identifying the fuels you can predict how the fire will

behave.

Next, look for signs of weather – especially wind. Is it blowing towards you from the direction of the fire? If so, you're located in the fire path; a bad place to be. Read the direction of the smoke column to learn the prevailing direction the fire is traveling

Finally, size up the topography of the land around you. Is it steep and mountainous, or flat and open? Fire travels uphill, and fans-out in open spaces; clues about what path the fire will likely travel.

## **2. Escape route**

“If a wildfire presents imminent danger, get out of the backcountry,” says Dr. Nick Striegel, Colorado’s Assistant State Veterinarian. He wrote the document “Wildfire Preparedness for Horse Owners” for the Colorado State University Extension program.

“Know the lay of the land before going in, so that you can find an alternate route out when you need it,” Striegel says.

Using what you observed during size up, chart an escape route that meets these criteria:

- . travels outside the fire path
- . avoids dangerous fuel areas (a stand of beetle-killed trees, for example)
- . stays upwind, but downhill, of the fire

If the blaze cuts you off from the trailhead, be prepared to detour in favor of a safer route.

### **3. Smoke out**

In August 2008, a wildfire in the Sierra Nevada Mountains of California threatened the renowned endurance race, Tevis Cup. Ride organizers conducted a comprehensive analysis about the effects of wildfire on equines. Ultimately, they canceled that year's event. I spoke with two of their experts to learn more.

"The horse is a fantastic cardio-pulmonary machine," says Dr. Greg Fellers, head veterinarian for Tevis Cup. "No other animal in the world can transfer oxygen from the air into the blood stream as fast as a horse; not even a cheetah."

Consequently, Dr. Fellers found that smoke inhalation was the greatest health threat to horses. Microscopic smoke particles enter the lungs where they cause chronic obstructive pulmonary disease (emphysema). Some particles pass into the bloodstream, leading to high blood pressure, infection and even heart attack.

Tom Christofk, the county's air pollution control officer, observed that air quality is worse in low lying terrain.

"Smoke drains down slope into low elevation gullies and draws," Christofk says.

Consequently, stay out of smoky canyons and valley bottoms during your escape. Ridgeline trails are good, so long as they're not located uphill from the fire.

#### **4. Worst case scenario**

"If there's no escaping a fire, look for an open meadow and wait out the fire," Cople advises.

Here's the calculation firefighters use to determine the size of open space needed to survive a burn over.

Flame height X 4 = buffer distance

For example, a burning tree with 20 foot flames, times four, equals 80 feet of buffer distance needed between you and the fire.

Considering that fire will be on all sides, you'd need a meadow measuring at least 160 feet wide.

Handling panicked horses is dangerous during a burn over situation. It's best to let them loose to escape on their own. But

before setting them loose, jerk saddles and all tack that could snag or catch fire.

Jared Bybee, a BLM wild horse and burro specialist, has observed horse behavior in the presence of wildfire.

“They do a good job of getting out of the way,” Bybee says. “When the fire has passed, they go right back to familiar ground, even if it’s burned black.”

That means a horse will likely return to a recent campsite, or to the trailhead where the horse trailer is parked. Before setting them loose, make sure the animal has identification linking it to you.

Escaping a backcountry wildfire is tricky, but so long as horsemen use good judgment to balance guidelines and pieces of information, they’re likely to make it out unscathed.