Preparing Your Farm for Wildfire Season

Byline: Canadian Agricultural Safety Association

Considering that Canada borders three oceans, spans six time zones, and has diverse terrain, it's no surprise that a range of natural hazards can affect farms across the country at any given time. While one part of the country may be in a severe drought, another may experience record floods.

But regardless of the location, one hazard has become an all-too-common threat during the warmer months: wildfires.

Just look at Canada's 2023 wildfire season, which was the most destructive on record. By the end of 2023, more than 6,000 fires had burned 15 million hectares of land, which, to put it in perspective, is substantially more than the annual average of 2.5 million hectares.

Which is why being prepared for wildfires, wherever you are, is essential. That's exactly the message that FireSmart Canada, a national program that helps Canadians increase neighbourhood resilience to wildfire and minimize its negative impacts, wants to raise awareness about.

Below are some of FireSmart Canada's recommendations and tips to reduce a farm's vulnerability to wildfire.

Forms of ignition

Understanding the different forms of ignition — embers, radiant heat, and direct flame — is essential for identifying where fires might start on a farm and how they could spread.

With embers, which can travel several kilometres, the most significant risks are ember traps, such as grass, branches, needles, and other fine fuels, which are the main way that fire spreads to and through farms. In fact, 80 to 90 per cent of structures lost during a wildfire are due to ember transport.

The accumulation of combustible materials, dry vegetation, and other fine fuels is often inevitable on a farm. Still, it's essential to take steps to mitigate the spread of fire throughout the farm property. As part of a fire mitigation strategy, identify priority areas on the farm and start by reducing ember traps in those areas. This may include clearing excess vegetation, moving dry hay and feed storage away from other structures, and covering openings to prevent embers from entering.

"When folks hear about wildfire that has happened in communities [and question] why did this house burn and not this house, there is a lot of information that shows that the houses were impacted because there were certain things close to the structure that then caused the

fire to be immediately close to [the house],” explained Ken Cox, a wildfire prevention officer with the Department of Natural Resources in Nova Scotia, during a recent Canadian Agricultural Safety Association forum.

Both radiant heat and direct flame require fuel pathways to travel through a farm property. With radiant heat, fire spread occurs when a fire is burning hot enough, long enough, and close enough to another structure or fuel source. Certain materials, such as metal siding, stucco, and cinder blocks, are good at withstanding radiant heat from fire. For direct flame, eliminating a path for fire to reach a structure is imperative to avoid ignition. Even something as simple as opening gates to disrupt a potential pathway can be advantageous for avoiding direct flame ignition.

The defensible space

While wildfires are alarming and frightening, the good news is that various steps can be taken, and involving minimal cost and time, to help mitigate wildfire impact on a farm property.

The first step is to create a “defensible space” by clearing a 1.5 metre non-combustible area around a farm’s buildings to prevent fire from spreading to them. Cox called this the “first line of defence” for helping to protect any structure from a wildfire.

“That space is the most influential on any kind of potential for fire spread. The biggest thing is that it’s not a very expensive thing to do; it’s going around and cleaning up things like grass,” Cox explained.

Outside of the immediate defensible space, it’s still important to take steps to eliminate fuel sources that could help a fire spread. In the intermediate zone from a structure (1.5 to 10 metres), look to reduce combustibles to expand the defensible space by pruning and thinning vegetation, raking, moving wood, etc. In the extended zone (10 to 30 metres), the focus is to reduce a fire’s intensity by removing dead or dying trees and mowing where possible.

Wildfire season checklist

As wildfires become a more frequent and intense threat across Canada, being prepared before fire season starts is crucial. A comprehensive wildfire season checklist can help farmers take proactive steps to protect their property, livestock, and livelihoods.

1. Create a defensive space around structures. Ensure that this area does not have any materials that could allow a fire to get close to a structure.

2. Maintain equipment. Poorly maintained equipment is a fire waiting to happen, with ATVs, combines, and tractors among the primary potential fire sources on farms. “I was out west

for a lot of my career, and we did get a lot of calls on farms due to equipment caught on fire with folks working in the fields," said Cox.

4. Water access. It's no surprise that having water available, or knowing where it is available nearby, is invaluable in the event of a fire. For certain buildings, it may also be worth considering installing sprinklers.

5. Have a fire plan. This is essential for every farm, regardless of its location. A fire plan, included as part of an emergency preparedness plan, helps emergency responders know the layout and potential hazards on a farm. Ensure it outlines evacuation plans, muster points, and procedures for handling livestock in a fire.

6. Insurance. Before wildfire season, it's best practice to ensure your insurance coverage is up to date and check for any policy exclusions regarding fire.

7. Monitor conditions. Keeping an eye on weather conditions and fire risk in your area is crucial for being prepared.

If you're unsure of where to start with protecting your farm property from fire spread, FireSmart representatives are available in every province and territory to conduct site assessments. The assessments involve an in-depth review of a property, identification of potential areas of concern, and recommendations for mitigating fire spread. Information about the FireSmart Canada assessments is available at firesmartcanada.ca.

While it's impossible to eliminate all fire risks on a farm, taking a few proactive and preventative measures can make all the difference in avoiding a devastating outcome if there is a fire near your farm's property.

For more farm safety information and resources, visit agsafetyweek.ca.

About Canadian Agricultural Safety Week

Every year, the Canadian Agricultural Safety Association raises awareness about the importance of farm safety with the Canadian Agricultural Safety Week (CASW) campaign, which occurs during the third week of March. In 2026, CASW takes place March 15-21 and is sponsored by Syngenta Canada, CN, Canadian Canola Growers Association, and Parrish & Heimbecker.

About the Canadian Agricultural Safety Association

The Canadian Agricultural Safety Association (CASA) is a national, non-profit organization dedicated to improving the health and safety of farmers, their families and agricultural workers. CASA is funded in part by the Sustainable Canadian Agricultural Partnership. For more information, visit www.casa-acsa.ca.