Farm Machinery Fire Prevention Meeting Kit

FIRES ON FARMS – HAZARDS

Machinery like tractors and combines are essential to daily farm work. Machinery can be a fire hazard when it is not properly maintained. A fire on the farm is a major concern. Long distances from the fire department mean longer emergency response times, and a fire on your farm could be extremely costly and potentially dangerous.

HOW FIRES BURN

The elements necessary to create a fire are Fuel, Heat and Oxygen. These elements constitute the fire triangle. Removal or control of one element will remove or control a fire hazard.

3 WAYS TO PREVENT MACHINERY FIRES

Large machinery fires – including those on and in farm combines and harvesters – cause around $20 million in property losses, untold millions in lost productivity and up to 50 serious personal injuries every year. **But they can be prevented with attention to the three components of farm combine fire safety.**

1. **Inspect Your Combine Harvester to Minimize Fire Risk**

Attention to fire safety starts well before a farm combine or harvester wheel turns. It starts at the farm shop or wherever a machine is stored year-round. Add the following to your routine post-harvest maintenance inspections to minimize fire risks:

- Clean crop residue or engine fluids like fuel or grease around the machine that could easily ignite in the presence of an external heat source.
- Clear plant material from bearings, belts and other

potentially heat-generating components.
- Follow manufacturer's recommendations for maintenance and lubrication prior to storing your harvester for a long period of time, paying close attention for potential leaks in hoses or fittings.
- Make sure your machine is stored away from external heat sources like furnaces or other heating elements that can lead to fire.

1. **Monitor Equipment for Excessive Heat**

Fast forward a few months to harvest; once ready to hit the field, that's when your farm combine or harvester safety should broaden to include fire detection and notification.

Advancing sensor technology available today can monitor heat generated around key components to ensure they're within operating temperature ranges and aren't creating enhanced fire risk.

Thermal imaging can also help with fire detection. Because equipment can show problems in the form of excessive heat before they fail, early identification of anomalies is a critical step in preventing possible combine fires.

1. **Be Prepared by Equipping Your Combine Tractor with Fire Extinguishers**

A combine or harvester can go up in flames in a matter of minutes. If you've detected an overheating component or small fire early on, you can still take action to prevent it from engulfing the machine. Make sure you have fire extinguishers both in the cab as well as near likely trouble spots around the machine so you can take quick action. And make sure they're inspected and in working order at all times.

ELEMENTS OF SAFE FUELING

- Never refuel equipment with the engine running.
- Allow hot engines to cool down before refueling.
- Do not use electronic devices like cell phones while fuelling.

- Do not enter the equipment. Doing so could create static electricity that could create a spark and ignite fuel vapors.
- Absolutely no smoking while refueling. Smoking is only to be done in areas well away from machinery and ignition sources
- Clean up minor spills and allow any spilled fuel on the engine to evaporate before starting.

IN CASE OF FIRE

- If a fire does break out on a machine you're operating, quickly shut off the engine, grab your extinguisher, get out, and get help.
- Approach any fire with extreme caution. Even a small fire can flare up dramatically when doors, hatches, or other areas are opened.
- If possible, use the extinguisher's flexible hose to shoot the chemical from a safe distance at the base of any flames you see.
- Remember that it may not be possible to put out every fire. If it's in a difficult-to-reach area or seems out of control, don't risk it, wait for help to arrive.

FINAL WORD

There are the three major elements that combine to create fire. They are air, heat, and fuel. It's impossible to eliminate air from around farm machinery. Farm machinery fire prevention focuses on keeping the machinery clean of possible fire causing materials (fuel) and eliminating all possible sources of heat that could lead to a fire.