



Fact Sheet

Field and Combine Fires

- In the past 20 years, the top fires on Illinois farms originated in barns, fields, machine sheds and with combines.
- Top causes of farm fires are due to burning trash, electrical and brush/grass fires.
- We know that fields fires can start as a result of the disposal of a lit match or cigarette, but surprisingly, a majority of fires can be caused by the machinery on the farm.
- Pay attention to the engine and engine compartment, this is where 75% of all machinery fires start due to the exhaust manifold and turbocharger.
- Newer combines have a greater risk than older ones for fire. Newer combines have a much larger volume of synthetic materials such as shields, panels and fuel tanks that will burn once the fire is ignited.
- As combines have gotten bigger in general, with larger processing areas and storage capacity, the operator would be unlikely able to see the engine area.
- A fire can start 15-30 minutes before you ever notice it in the field, so be alert.
- When a fire starts, don't assume you can get it under control. Carry your cell phone and call for help right away.
- As a general rule of thumb, a fire doubles in size every 30 seconds. So, if you have a fire that 3 feet by 3 feet, it can consume an entire acre in less than 10 minutes. In drought conditions, like we've seen recently, it could spread even faster.
- Many of our rural departments may have volunteers that are also farmers and, if they have to get to the end of the field then drive to the station before they can get to you, this can be a slow process.
- Pre-plan for emergencies in all fields. Write down directions or at the very least, have a local address or intersection. When you call, make sure you specify county.
- Park your equipment out of the shed so in the event of a fire it doesn't claim the shed and its contents.



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Extra Prevention Tips

- When cleaning, start with the engine compartment and work outwards and counterclockwise. Then move on to cleaning areas accessible from ground level. When you are finished cleaning, recheck the engine compartment for any crop debris that may have blown in from ground level cleaning.
- Help yourself and other neighboring farmers. Have a piece of tillage equipment hooked up and ready to go in the event it is needed to help stop the spread of a fire.
- Perform regular maintenance. Keep check for fuel and oil leaks. Frequent blow dry chaff, leaves and other materials off the machine with compressed air, and clear off any wrapped plant materials on bearings, seals, belts, and other moving parts.
- Machines must be inspected periodically throughout the harvest day.
- Service equipment at the end of the day, rather than the beginning. To check overheating components or smoldering materials that could burst into flames.
- Park all farm trucks along the road and not in the fields. Mow roadsides.
- Shut down engines and let them cool before refueling.
- Maintain the electrical system. Keep a close eye on components that draw heavy electrical loads, such as starter motors, remove actuators and heating and cooling systems. Consider fuses that blow regularly a warning sign that a circuit is overheating.
- Carry 2 ABC dry chemical fire extinguishers. Have a 10 lb. in the cab and 20 lb. at ground level. Check to make sure they are charged before the season. Local companies such as DI Fire, Getz Fire Equipment, Illini Fire Equipment, and Fire Suppression Systems Inc. can help refill them. Invert them once or twice a season to insure the powder inside hasn't compacted with machinery vibration. Be realistic though in what you can put out.
- Use care when making welding repairs on equipment in the field, and always have a bucket of water available.
- Always follow safety procedures posted on the machine and in the Operator's Manual, and when carrying out an inspection or cleaning, make sure the machine is off and the parking brake is set.



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General Public Information

- Don't throw out cigarettes.
- Keep a watchful eye when traveling the country roads.
- Don't let your curiosity interfere. Clear the way for fire trucks.
- If you live in a rural area and a fire is nearby, be prepared to evacuate.

Sources

- "Combine Fires." Chip Petrea, University of Illinois at Urbana-Champaign. 2012.
- "Don't Let Fire Reap its Harvest." Bob Vogltance & Larry Wiles, Nebraska Fire Service. 2011.
- "Dry Field Conditions Increase Harvest Fire Risks." Audrey Reith, Cornell University – Cooperative Extension Orange County. 2011
- "Dry Field Conditions Increase Harvest Fire Risks." High Plains/Midwest Ag Journal. October 24, 2011.
- "Equipment Maintenance – Helpful in Prevention of Field Fires." Jennifer Stewart, Purdue University. Westernfarmpress.com. October 2, 2010.
- "Proper Equipment Maintenance Helps Prevent Damaging Fires." Jennifer Stewart, Purdue University. Southeastfarmpress.com. October 6, 2010.
- "Take Precaution to Avoid Combine Fires." South Dakota State University, Corn & Soybean Digest. October 07, 2011.