

Harvester Fire: Reducing the risks



Seven percent of harvesters will start a fire each year. Of these, one in ten will cause significant damage to the machine or surrounding crop. Losses can be minimised with hygiene, inspection and maintenance.

The Grains Research and Development Corporation (GRDC) has developed the following checklist, which can help reduce the risk of harvester fires.

MINIMISE FLAMMABLE MATERIALS

Minimise flammable material by following a rigorous clean down regime. Clean-down intervals should be guided by observing the visual build-up of flammable material.

START AT THE FRONT

Always check the harvester front by inspecting under guarded areas, where dust and chaff build-up can go unnoticed. Pay attention to knife drive gearboxes and bearings as they can overheat.

FRONT HYDRAULICS

Periodically degrease hydraulic motors as oil can attract dust and create a flammable mixture that is difficult to remove.

SIDE PANEL SPOT CHECKS

Frequently inspect under panels, guards and covers. If the machine is stopping then take the opportunity to check for signs of trouble. Inspect all fuel and hydraulic lines thoroughly for leaks and repair these immediately.

BEARING CHECKS

Use an infrared thermometer to check the temperature of bearings and other moving parts and monitor the temperature of problem bearings by keeping a daily temperature log. Some bearings run hotter than others. If the temperature of a bearing increases by more than 50 percent, investigate further.

BRAKES

Ensure brakes are inspected for overheating and are well maintained.

EXHAUST SYSTEM

Keep exhaust pipes and mufflers clean and free of chaff. When modifying exhaust pipes and mufflers, avoid creating additional entrapment points. If the engine fan is directed over the exhaust, ensure air flow is sufficient to keep it clean.

TURBO CHARGERS

Use heat-resistant paints on exhaust manifolds and turbochargers to create a more slippery surface, which will prevent dust from settling on hot parts and assist with cleaning from the engine fans.

CLEANING DOWN

Use a large air compressor for blowing down the machine, starting at the top. When cleaning the harvester, open the appropriate panels but leave the engine cover closed. When clean, repeat the process with the engine cover open to avoid blowing excess dust into the enclosure. With the top of the harvester blown down, work around the machine, opening all panels and blowing out.

Restrictions on harvesting during a total fire ban differ from state to state. See the guide over leaf to find out how they apply to you.

FIRE CONTROL

Make sure you're prepared if a fire starts:

- Check all fire extinguishers are in place and fully charged.
- Familiarise all operators with procedures for extinguisher use.
- Always have a mobile fire-fighting unit on-hand.
- Powder extinguishers must be recharged whenever partly used as powder will settle on the seal and partly used extinguishers will lose pressure.

INSURANCE

Make sure your farm property is adequately insured and contact your insurer whenever you purchase new machinery or equipment to include it under your policy. This can help you get back up and running as quickly as possible and minimise the disruption to your business. If you would like to review your insurance policies contact your local WFI area manager on 1300 934 934, or visit wfi.com.au.

CAN I HARVEST DURING A TOTAL FIRE BAN?

Know the restrictions in your state

<p>WA</p> <p>When a total fire ban is declared by DFES you can continue farming activities as long as your local government has not imposed a harvest and vehicle movement ban. However, you must ensure:</p> <ul style="list-style-type: none"> • Your vehicle is mechanically sound and the exhaust system is in good condition, free of gas leaks and has a spark arrester that is well maintained. • All reasonable precautions have been taken to prevent a bushfire starting. <p>In addition, your local government may require a firefighting vehicle to be onsite during harvesting operations.</p> <p>For more detailed information visit www.dfes.wa.gov.au</p>	<p>NSW</p> <p>The NSW Rural Fire Service states that no general purpose hot works such as using tractors or slashers can be done in the open during a total fire ban, however some activities such as emergency infrastructure work, bee hive smokers, mining operations and sugar cane harvesting may be exempt. These exemptions are detailed in the NSW Government Gazette each time a Total Fire Ban is declared.</p> <p>Call your local NSW RFS Fire Control Centre, or local Council for further advice before operating farm machinery.</p>
<p>SA</p> <p>The CFS advises that the Grain Harvesting Code of Practice applies to harvesting of any flammable crop. The code requires harvesting operations to cease when the local actual Grassland Fire Danger Index (GFDI) exceeds 35.</p> <p>The local actual GFDI can be determined:</p> <ul style="list-style-type: none"> • By a local committee, in consultation with local farmers • As measured or calculated by the harvesting operator. <p>For more information and tools to help calculate the GFDI visit www.cfs.sa.gov.au</p>	<p>QLD</p> <p>In Queensland, the Commissioner Queensland Fire and Rescue Service or their delegate has the authority under the provisions of the Fire and Rescue Act to impose a local fire ban. Restrictions will be imposed based on the severity of the emergency.</p> <p>For up to date information in your area visit www.ruralfire.qld.gov.au or phone free call 1800 020 440.</p>
<p>VIC</p> <p>The CFA advises that farm machinery can still be used during a total fire ban, but only if the machinery:</p> <ul style="list-style-type: none"> • Is free from faults and mechanical defects that could cause an outbreak of fire • Is fitted with a spark arrester in working order (unless it is fitted with a turbocharger or an exhaust aspirated air-cleaner) • Carries fire suppression equipment comprising either: <ul style="list-style-type: none"> • at least one knapsack spray pump, in working order, fully charged with water, with a capacity of not less than nine litres • at least one water (stored pressure) fire extinguisher, in working order, fully charged with water and maintained at the correct pressure, with a capacity of not less than nine litres. <p>Although permitted, the CFA warn that the use of farm machinery during a total fire ban should be avoided wherever possible as the risk of starting fires is extremely high and the impact of fire may be much greater.</p>	<p>TAS</p> <p>The Tasmania Fire Service advise that the use of machinery for harvesting may be subject to restrictions or prohibited on the declaration of a total fire ban. Days of Total Fire Bans are advertised in daily newspapers, on television and radio and on the TFS website. Visit www.fire.tas.gov.au for more information.</p> <p>This information is intended as a guide only and has been prepared based on information published by:</p> <ul style="list-style-type: none"> • Grains Research & Development Corporation - www.grdc.com.au • Department of Fire and Emergency Services - www.dfes.wa.gov.au • Country Fire Authority - www.cfa.vic.gov.au • South Australia Country Fire Service - www.cfs.sa.gov.au • NSW Rural Fire Service - www.rfs.nsw.gov.au • Rural Fire Service Queensland - www.ruralfire.qld.gov.au • Tasmania Fire Service - www.fire.tas.gov.au

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