Voluntary Grain Harvesting Guide

A joint Victorian Farmers Federation and CFA initiative

cfa.vic.gov.au

Scope

This voluntary guide applies to all grain harvesting and grain handling operations that occur “in the paddock”, including operation of grain harvesters, operation of vehicles involved in transporting grain, grain dryers and grain augers. The prevention of fire and early suppression of accidental fires are likely to reduce damage to crops and machinery as well as, protecting life and property.

The intent of this document is to preserve the valuable work completed by those in the grain harvesting industries, whilst minimising the impact on the safety of communities. This voluntary guide relates to Grain harvesting specifically.

Advocated practices

1. Suspend grains harvesting operations when the local conditions are hot, dry and windy; and if a fire were to start would be difficult to contain. The recommended thresholds are shown in the Voluntary Grain Harvesting Table overleaf. The local actual conditions can be determined:
   - By operators monitoring the weather forecast and anticipating which part of the day may be too hot, dry and windy to proceed. This can be confirmed in consultation with local farmers, via locally established networks, or
   - As measured and calculated by the machinery operator using a hand held weather station, local weather station or similar localised tool.
2. Adopt a regular maintenance program, both before and during grain harvest operations, paying particular attention to wearing parts and bearings and build-up of combustible materials. This is critical prior to and during the fire danger period.
3. Operators should be aware of potential varying ignition sources from the machinery they are utilising.
4. Have immediate access to a UHF CB radio or mobile phone.

Recommended practices

1. As conditions become dryer and warmer, increased maintenance and vigilance should be practiced. Whilst in operation operators should ensure they are regularly removing the build-up of debris from their machinery.
2. As conditions become dryer and warmer, actively seek information on voluntary harvesting cessation practices.
3. Prior to harvesting commencing, establish a minimum perimeter 4-metre fuel break around crops or paddocks to be harvested, or alternately, review your property lay-out and establish or identify a network of strategic fire breaks. These may consist of a 4-metre mown or chemical break with a 2-metre ploughed strip incorporated within it.
4. Reducing your header speed one or two kph can reduce machine temperatures and reduce the risk of a fire under normal conditions, particularly when harvesting downwind.
5. Have a well-maintained and fully operational farm fire-fighting unit with 250 litres of water located in the paddock area where harvesting or grain handling operations are occurring.
6. Operators should monitor total fire ban information advice, weather conditions and current fire incidents via sources such as ABC Radio, the media, Bureau of Meteorology, or the VicEmergency App. Visit **cfa.vic.gov.au** or **emergency.vic.gov.au** to check Total Fire ban and Fire Danger Rating information.
7. Operators of harvesting equipment should be bushfire ready by having appropriate **firefighting clothing available including sturdy footwear** and a plan for the protection of themselves, their equipment and the community. When weather is forecast to be hot, dry and windy, we strongly suggest you monitor current weather conditions and use the Voluntary Grain Harvesting Table to cease harvesting when those conditions are reached.
8. Inexperienced operators should make themselves familiar with the fire behaviour and suppression principles in CFA’s ‘Guidelines for Operating Private Equipment at Fires’. These are available on CFA’s Website: **cfa.vic.gov.au**
9. Phone 000 as soon as you detect a fire.
10. In the event of a harvester or farming machinery fire, if safe to do so without causing additional fires and endangering your own life, relocate the machinery to a fuel reduced area, in an attempt to prevent fire spread.

For further information

VicEmergency Hotline 1800 226 226	**emergency.vic.gov.au**
Victorian Farmers Federation 1300 882 833	**vff.org.au**
Country Fire Authority	**cfa.vic.gov.au**

Victorian Farmers Federation and CFA would like to acknowledge **South Australian Farmers Federation** and **South Australian Country Fire Service** for their support.

Version 10 - August 2022

Voluntary Grain Harvesting Table

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The table below calculates the average wind speed (kilometres per hour) for different temperature (degrees Celsius) and relative humidity (RH) combinations that equate to hot, dry, windy conditions which if a fire were to start could be difficult to contain.

Temperature	Relative Humidity 5%	10%	15% (2)	20%	25%	30%	40%	50%	60%	65%
15 °C	31	35	38	40	43	45	49	53	56	58
20 °C	29	33	36	38	40	43	46	50	53	55
25 °C	27	30	33	36	38	40	44	47	50	52
30 °C	25	28	31	33	35	37	41	44	47	49
35 °C	23	26	28	31	33	35	38	41	44	46
40 °C	21	24	26	28	30	32	35	39	41	43
45 °C	19	22	24	26	28	30	33	36	39	40
	5%	10%	15%	20%	25%	30%	40%	50%	60%	65%

Average Wind Speed (Kph)

Table derived from Purton 1982. Using assumptions: fuel load of 4.5 t/ha and fuel 100% cured.

Obtain relative humidity, temperature and wind speed details as per measuring instruments operating instructions.

IT IS RECOMMENDED THAT GRAINS HARVESTING OPERATIONS CEASE WHEN THE AVERAGE WIND SPEED FOR A PARTICULAR TEMP AND RH COMBINATION IS EXCEEDED

Is the wind speed too high for me to harvest right now?

Combination example **Refer to the highlighted areas on the table above.**

1. **TEMP= 40°**
2. **RELATIVE HUMIDITY (RH) = 17%** (Round down to 15%)
3. **For this combination of TEMP and RH, it is recommended that grain harvesting operations cease when the average wind speed is greater than 26kph.**

Victorian Farmers Federation Grains