

Voluntary Grain Harvesting Guide – Trial 2014/15

A joint Victorian Farmers Federation and CFA initiative



Grassland Fire Danger Index (GFDI)

Fire Behaviour Relationships

GRASSLAND FIRE DANGER INDEX	RATE OF SPREAD (km/h)	DIFFICULTY OF SUPPRESSION	MAXIMUM AREA AT VARIOUS TIMES FROM START (hectares)				AVERAGE FINAL SIZE OF FIRE (hectares)
			½ hr	1 hr	2 hr	4 hr	
0-11	0.3-0.6	Low-Moderate Headfire stopped by road and tracks Head attack easy with water	3-6	20-40	80-160	320-640	3-16
12-24	1.3	High Head attack generally successful with water	15	90	360	1440	65
25-49	2.6	Very High Head attack will generally succeed at this Index	35	210	840	3360	450
50-99	5.2	Severe Head attack may fail except in favourable circumstances and close back burning to the head may be necessary	80	480	2000	8000	2400
100-149	6.4-12.8	Extreme Direct attack will generally fail. Backburn from a secure good line with adequate personnel and equipment. Flanks must be held at all costs.	105-300	630-1800	2500-7000	10000-28000	4000-32000
150+	12.8+	CODE RED	300+	1800+	7000+	28000+	32000+

For further information

Victorian Farmers Federation 1300 882 833
Victorian Bushfire Information Line (VBIL): 1800 240 667

vff.org.au
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 fire 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.

Legislative requirements

Country Fire Authority Act 1958

Section 50 Required safety features of motor vehicles driven during fire danger period near crops

(1) In the country area of Victoria a person shall not drive or operate a vehicle propelled by internal combustion (other than a vehicle referred to in subsection (2) so that the vehicle is in contact with any crop, grass, stubble, weeds, undergrowth or other vegetation unless the vehicle is fitted with an efficient silencing device so constructed that all the exhaust from the engine of the vehicle passes through the silencing device.

Penalty: 10 penalty units.

(2) In the country area of Victoria a person must not drive or operate a tractor or a self-propelled farm machine or a traction engine or an earth-moving, excavating or road-making machine propelled by or incorporating a heat engine within nine metres of or in contact with any crop, grass, stubble, weeds, undergrowth or vegetation unless the tractor, traction engine or machine –

- (a) is free from faults and mechanical defects which would tend to cause an outbreak of fire; and
- (b) is fitted with a spark arrester*; and
- (c) carries the prescribed fire suppression equipment during a fire danger period.

Penalty: 10 penalty units.

(3) A person operating a tractor, traction engine or machine referred to in subsection (2) must maintain the spark arrester in proper working order so as to prevent the discharge of exhaust particles which may tend to cause an outbreak of fire.

Penalty: 10 penalty units.

(4) A person must not fit a spark arrester to a tractor, traction engine or machine referred to in subsection (2) unless the spark arrester complies with the standard prescribed under subsection (5).

Penalty: 10 penalty units.

(5) A person must not sell a tractor, traction engine or machine unless it is fitted with a spark arrester which complies with the relevant Standards Association of Australia standard prescribed for the purposes of this subsection.

Penalty: 10 penalty units.

(6) The Chief Officer may exempt a person from compliance with subsection (2)(c) where in the opinion of the Chief Officer the circumstances surrounding the operation of the tractor, traction engine or machine warrant it.

(7) Nothing in this section requires a tractor, engine or machine referred to in subsection (2) which is fitted with a turbocharger or an exhaust aspirated air-cleaner to be fitted with a spark arrester.

Country Fire Authority Regulations 2014

Section 113 Vehicular heat engines

(1) For the purposes of section 50(2)(c) of the Act, the prescribed fire suppression equipment is—

- (a) at least one water spray pump of the knapsack pattern that—
 - (i) is in proper working order; and
 - (ii) is fully charged with water; and
 - (iii) has a tank capacity of not less than 9 litres; and
 - (iv) complies with AS 1687; or
- (b) at least one water (stored pressure) fire extinguisher that—
 - (i) is in proper working order; and
 - (ii) is fully charged with water and maintained at the correct pressure; and
 - (iii) has a tank capacity of not less than 9 litres; and
 - (iv) complies with AS/NZS 1841.1.

(2) For the purposes of section 50(5) of the Act, a spark arrester must comply with AS 1019.

Section 114 Non vehicular heat engines

(1) In this regulation, fire danger period includes a prohibited period declared under section 3 of the **Forests Act 1958**.

(2) This regulation does not apply to—

- (a) a heat engine propelling or incorporated in a vehicle or machine to which section 50 of the Act applies; or
- (b) a chainsaw, plant or grass trimmer or lawn mower used in green vegetation.

(3) A person must not use a heat engine in the open air in the country area of Victoria (not including a fire protected area), unless—

- (a) the heat engine is fitted with an efficient spark arrester; and
- (b) if a fire danger period is in force in the area of use—
 - (i) the area around the heat engine is cleared of flammable material for a radius of not less than 3 metres; or
 - (ii) subject to subregulation (4), a person, who has the capacity and the means to extinguish a fire, is in attendance at all times the heat engine is in operation together with fire suppression equipment referred to in regulation 113(1) or other fire suppression equipment of the type and number approved by the Chief Officer.

Penalty: 10 penalty units.

(4) The Chief Officer may exempt a person from compliance with subregulation (3)(b)(ii) where the Chief Officer considers it appropriate in the circumstances.

Advocated practices

1. Suspend grains harvesting operations when the **local GFDI exceeds 35**.

The local actual GFDI can be determined:

- By operators considering the weather forecast and anticipating which part of the day may exceed GFDI of 35. 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. In the lead up to summer and 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. In the lead up to summer and 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. 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.

5. Operators should monitor total fire ban information advice, weather conditions and current fire incidents via sources such as the media, Bureau of Meteorology, or the FireReady App/VicEmergency website **emergencyvic.com.au**

6. As per recommendations made in CFA's publications 'On the Land' and 'Fire Ready Kit', operators of harvesting equipment should be bushfire ready by having appropriate **fire fighting clothing available including sturdy footwear** and a plan for the protection of themselves, their equipment and the community.

7. Inexperienced operators should make themselves familiar with the fire behaviour and suppression principles within the CFA's 'On the land' publication and in CFA's 'Guidelines for Operating Private Equipment at Fires'. These are available on CFA's Website.

8. Phone 000 as soon as you detect a fire.

9. In the event of a harvester fire, if safe to do so without causing additional fires and endangering your own life, locate the machinery to a fuel reduced area, in an attempt to prevent fire spread.

*Machinery operators should seek advice from equipment supplier to ensure spark arrester a suitable spark arrester is fitted and complies with any relevant standards.