



South Australian Country Fire Service

GRASSLAND FUEL CURING POLICY

October 2004



Government
of South Australia

APPROVED

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1. Introduction

Grassland fuel curing is the process of progressive senescence and drying out of grass after flowering (annual grasses) or drought (perennial grasses) and is expressed as a fraction of the dead material in the grass sward (Cheney and Sullivan 1997). Fuel curing has a major effect on the rate of spread of grassland fires and as a consequence it is an important input into the Grassland Fire Danger Meter (CSIRO – modified McArthur Mk 4).

Fuel curing assists in the prevention, preparedness and responses activities of the SA Country Fire Service. These include:

- Fire Danger Season date assessment
- Local permit condition development by District Bushfire Prevention Committees
- Hazard analysis for Section 40 notices
- Fire Danger determination
- Total Fire Ban declaration
- Prescribed Burn Plan development
- Incident Control System Situational Analysis

This policy describes the methodology for assessing the degree of grassland fuel curing in South Australia.

The CFS acknowledges the use of the CFA Grassland Fuel Curing Guide as the official assessment tool for Grassland Fuel curing in South Australia.

2. Authorisation

The Grassland Fuel Curing Policy is authorised for use in the SA Country Fire Service.

EUAN FERGUSON

Chief Officer

SA Country Fire Service

October 2004

3. Purpose

The purpose of this policy is to establish a process for the assessment and recording of Grassland Fuel Curing and Grassland Greening in South Australia.

4. Policy

4.1 Grassland Fuel Curing

Grassland Fuel Curing Assessment will commence on 1 September annually.

The District Bushfire Prevention Committee will select four (4) sampling sites in the local government area, which will be used to assess the grassland fuel curing and grassland greening.

The Local Government Fire Prevention Officer (FPO) will assess the grassland fuel curing using the Country Fire Authority (CFA) Grassland Curing Guide.

The FPO will record the fuel curing percentage for each of the four sampling sites.

The FPO will provide an average fuel curing as a percentage for the local government area of responsibility to the CFS Regional Prevention Officer by 1700 hours on the Wednesday of each week until 100 percent curing is achieved. This information will be recorded on Form 1, Regional Grassland Fuel Condition Report.

The Regional Prevention Officer, Region 4 using the South Australian AVHRR Grassland Curing Index (GCI) satellite image, will assess areas of the North West Pastoral and North East Pastoral Fire Ban Districts. This image is updated by the Bureau of Meteorology (www.bom.gov.au). A sample image is provided in Appendix 1.

The CFS Regional Prevention Officer will determine the average fuel curing for each Fire Ban District in the Region and distribute this information to the State Operations Centre by 0900 hours on the Thursday of each week until 100 percent curing is achieved. This information will be recorded on Form 2, State Grassland Fuel Condition Report.

The Operations Centre Operator will determine the average grassland fuel curing for each Fire Ban District in the State and distribute this information to the Bureau of Meteorology, Regions and State Training Centre by 1030 hours on the Thursday of each week until 100 percent.

4.2 Grassland Greening

At the onset of the season change where annual seed begins to germinate and perennial grasses begin to regenerate the amount of greening will be measured as the percentage of living green material in the grass sward.

The FPO will record the grassland greening for each of grassland fuel sampling sites.

The FPO will provide an average grassland greening as a percentage for the local government area of responsibility to the CFS Regional Prevention Officer by 1700 hours on the Wednesday of each week until 80 percent greening is achieved. This information will be recorded on Form 1, Regional Grassland Fuel Condition Report.

The CFS Regional Prevention Officer will determine the average grassland greening for each Fire Ban District in the Region and distribute this information to the State Operations Centre by 0900 hours on the Thursday of each week until 100 percent curing is achieved. This information will be recorded on Form 2, State Grassland Fuel Condition Report.

The Operations Centre Operator will determine the average grassland greening for each Fire Ban District in the State and distribute this information to the Bureau of Meteorology, Regions and State Training Centre by 1030 hours on the Thursday of each week until 80 percent is achieved.

4.3 Training

Grassland Fuel Curing and Grassland Greening will be included as a module of the Fire Prevention Officers Course.

4.4 Data

The Regional Headquarters and State Operations Centre will maintain a database of the Grassland Fuel Condition annually.

4.5 Continual improvement

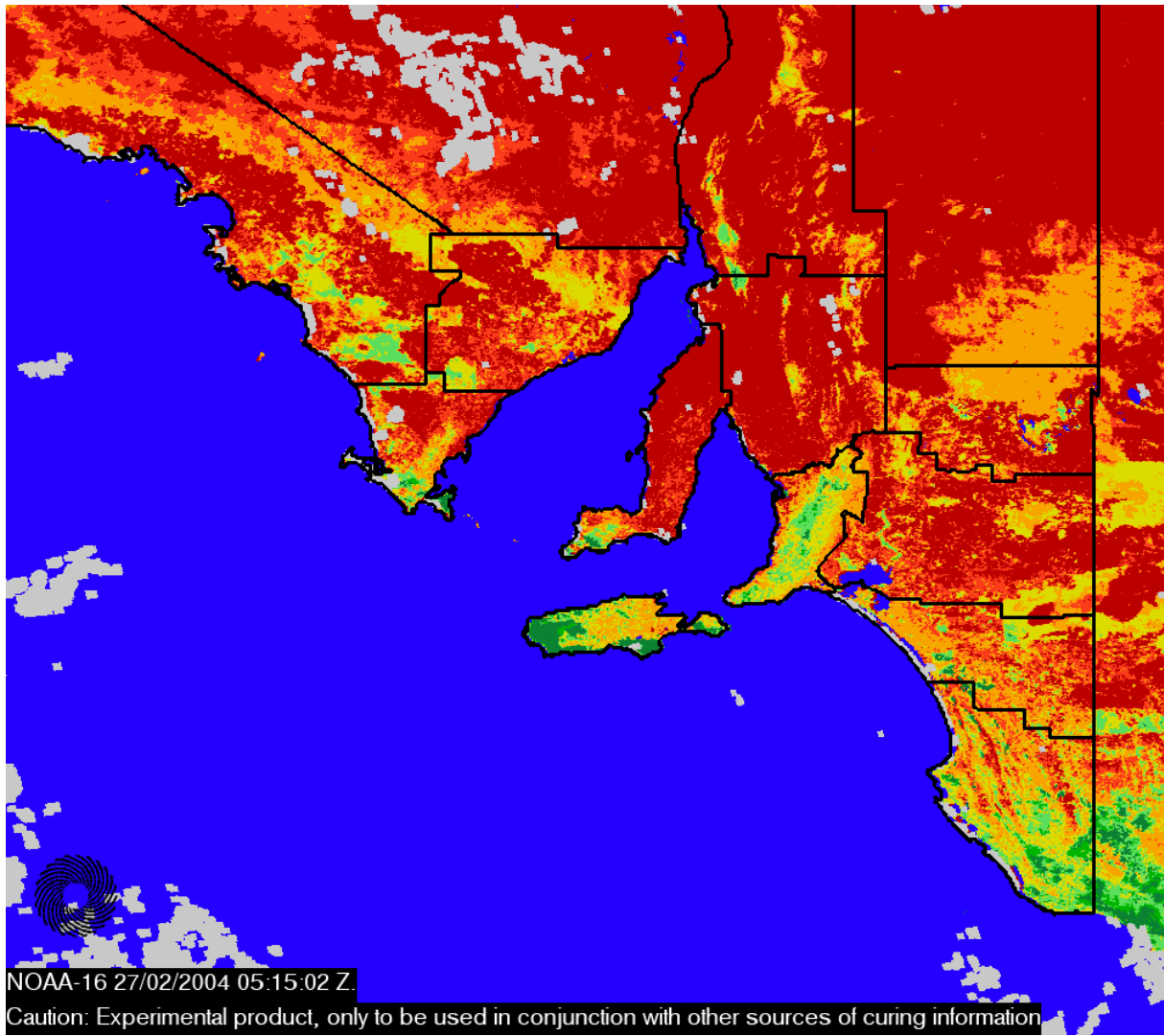
This policy will be updated to incorporate the outcomes of the Grassland Fuel Curing Project, currently being considered by the Bushfire CRC.

4.6 Bibliography

Cheney, p. and Sullivan, A. (1997) Grassfire: Fuel, weather and fire behaviour, CSIRO, Australia.

Country Fire Authority Victoria (2000) Grassland Curing Guide, CFA, Victoria, Australia.

Appendix 1



REGIONAL GRASSLAND FUEL CONDITION REPORT

REGION:

FOR WEEK ENDING THURSDAY:

<u>FUEL CURING</u>		
	Grassland Curing %	Fire Ban District Average
Fire Ban District		
Local Government Area		
Local Government Area		
Local Government Area		
Fire Ban District		
Local Government Area		
Local Government Area		
Local Government Area		
Fire Ban District		
Local Government Area		
Local Government Area		
Local Government Area		
<p><u>CONTACT AT REGION FOR THE FOLLOWING WEEK:</u></p> <p>Regional Duty Officer</p>		

STATE GRASSLAND FUEL CONDITION REPORT

FOR WEEK ENDING THURSDAY:

<u>FUEL CURING</u>		
Fire Ban District	Comments	Grass Curing %
North West Pastoral		
North East Pastoral		
West Coast		
Eastern Eyre Peninsula		
Lower Eyre Peninsula		
Flinders		
Mid North		
Riverland		
Murrayland		
Yorke Peninsula		
Mount Lofty Ranges		
Kangaroo Island		
Upper South East		
Lower South East		
<u>CONTACTS AT CFS HEADQUARTERS FOR THE FOLLOWING WEEK:</u>		
Deputy State Coordinator		
Technical Advice		
Total Fire Bans (Additional and Removal)		