

# FIRE UPDATE

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## LESSONS FROM THE RESEARCH

### NEW DVDS FROM THE BUSHFIRE CRC

The Bushfire CRC has issued 10 DVDs packed with practical information for fire managers and planners, based on a range of research conducted around Australia and New Zealand.

Nine of the DVDs are based on presentations by researchers to the 2009 Bushfire CRC/AFAC conference on the important issue of how fuels and weather affect fires.

The other encapsulates the broader implications of research from the Bushfire CRC's *Fire in the Landscape* project in Western Australia. The DVDs are available at [www.bushfirecrc.com/publications/](http://www.bushfirecrc.com/publications/) under Products.



▲ Delegates at the Bushfire CRC/AFAC conference held on the Gold Coast in September 2009.

#### THE IMPORTANCE OF FIRE FUELS AND THE WEATHER

Fire experts have long recognised that characteristics of fuels and weather are key drivers of fire behaviour. A seminar exploring these issues was held as part of the September 2009 Bushfire CRC & AFAC conference on the Gold Coast. The seminar gave fire and land managers a chance to hear from the researchers about the work being conducted all across Australia and New Zealand by the Bushfire CRC and develop an in-depth understanding of specific fire issues.

A set of DVDs based on the seminar presentations is now available from the Bushfire CRC through the AFAC Shop. They may be ordered individually or as a set.

These are valuable tools that organisations can use in their own right, produced as part of the Bushfire CRC's research adoption work. Their contents include videos of the seminar, one-on-one interviews with the researchers and such key information as field products available as a result of the research.

The DVDs are recommended for anyone with

an interest in the latest practical, hands-on fire research. Fire managers and others who attended the seminar will find them a valuable refresher.

#### WHAT'S ON OFFER

##### Overview – Fire Fuels and Weather Seminar

An outline of the pre-conference seminar at the 2009 Bushfire CRC & AFAC Annual Conference on the Gold Coast, introducing the researchers and their work; how industry can use the research; how the work can be applied more broadly than to the specific regions where it was undertaken; what the researchers expect fire managers will learn from their presentations; and the future plans the researchers have for their work.

*Duration: 15 minutes 47 seconds.*

#### THE RESEARCH

The following DVDs include the seminar presentation plus a short interview with the researcher:

##### Fire regimes in semi-arid lands

Dr Lachie McCaw, Bushfire CRC Project Leader, Department of Environment and Conservation, Western Australia. This

presentation discusses a study which examined fire patterns in semi-arid lands over 60 years and found big differences in the way different vegetation types have burned.

*Duration: 23 minutes 25 seconds (lecture), 3 minutes 11 seconds (interview).*



##### Atmospheric stability and the use of the Haines index in Australia

Dr Graham Mills (above), Bushfire CRC Project Leader, senior researcher Bureau of Meteorology. The belief is long held that fires behave more erratically when the atmosphere is unstable. This DVD contains a presentation by Dr Mills on why this is the case and how this has been confirmed by his research.

*Duration: 29 minutes 4 seconds (lecture), 3 minutes 26 seconds (interview).*



◀ **Fieldwork:** Bushfire CRC researcher and fire ecologist, Dr Roy Wittkuhn, of the Department of Environment and Conservation (WA), who features in the *Fire in the Landscape* DVD.

## END USER STATEMENT

“The *Fire in the Landscape* DVD will be of interest to many fire managers and planners, not just those in Western Australia, but also to those who live and work in similar environments around Australia and abroad. It provides testament to the important collaborative approach between researchers and end users such as land managers.”

– Murray Carter, Manager, Fire Management Services Branch, Department of Environment and Conservation (WA).

## FIRE IN THE LANDSCAPE

A special Bushfire CRC multimedia project is underway to capture the outputs of several research studies in specific regions of Australia, with research in south-west Western Australia the first focus. This project is being supported by the AFAC Rural Land Managers Group.

A DVD, *Fire in the Landscape*, is now available as part of the CRC’s research adoption process for this project. Based on the special research program “Managing Forest Fires in South Western Australia”, it analyses the past half-century of bushfire history in semi-arid Western Australia and looks at the ecological impact of various fire regimes.

The DVD features interviews with Bushfire CRC researcher, fire ecologist Dr Roy Wittkuhn, of the Department of Environment and Conservation (WA); Bushfire CRC postdoctoral fellow Dr Matthias Boer, of the School of Plant Biology, University of Western Australia; Bushfire CRC end-user Peter Keppel, regional manager, Warren region, Department of Environment and Conservation (WA); and Bushfire CRC project leader Dr Lachlan McCaw, principal research scientist, DEC.

Available from the Bushfire CRC through the AFAC Shop, the DVD has been produced with the support of the DEC and the AFAC Rural and Land Managers Group.

*Duration: 12 minutes 57 seconds.*

### Foehn winds in south-east Australia

Mr Rick McCrae, Bushfire CRC researcher and Team Leader, ACT Emergency Services. Foehn winds have been recognised in a number of parts of the world – but not Australia – as drivers of catastrophic fire behaviour. However, studies now show the effects of a foehn-like wind can cause a very rapid rise in fire danger in south-east Australia.

*Duration: 23 minutes 38 seconds (lecture), 3 minutes 15 seconds (interview).*

### Shrubland fire behaviour modelling

Dr Migeul Cruz, Bushfire CRC Project Leader, CSIRO Sustainable Ecosystems, ACT. This lecture discusses the development of tools for better planning of prescribed burning in shrublands.

*Duration: 20 minutes 54 seconds (lecture), 3 minutes 14 seconds (interview).*

### Burning under young eucalypts

Dr Phil Lacy, Bushfire CRC PhD student. Based on his PhD study for the Bushfire CRC, Dr Lacy developed a prescribed burning field booklet, *Burning Under Young Eucalypts* (available from the Bushfire CRC through the AFAC shop). In this DVD, he discusses his work.

*Duration: 3 minutes 7 seconds (short presentation), 3.20 seconds (interview).*

### Grassland curing and links to the Grassland Fire Danger Index

Dr Stuart Anderson, Bushfire CRC Project Leader and scientist, Scion NZ Forest Research Institute. The amount of dead material in grasslands is directly linked to the flammability of the grasslands.

*Duration 7 minutes 17 seconds (lecture) and 3 minutes 56 seconds (interview).*

### Eucalypt decline and the importance of fire in the landscape

Dr Neil Davidson, Bushfire CRC Project Leader, Senior Lecturer in forestry science, University of Tasmania. Dr Davidson discusses how a long absence of fire promotes growth of the understory, leading to the eucalypts progressively declining.

*Duration: 22 minutes, 27 seconds (lecture), 3 minutes 1 second (interview).*

### Dry lightning

Mr Andrew Dowdy, Bushfire CRC researcher, Bureau of Meteorology. Dry lightning is lightning without significant accompanying rain. Mr Dowdy’s goal was to improve forecasting of whether fires would be caused by lightning.

*Duration: 21 minutes 42 seconds (lecture), 3 minutes 43 seconds (interview).*