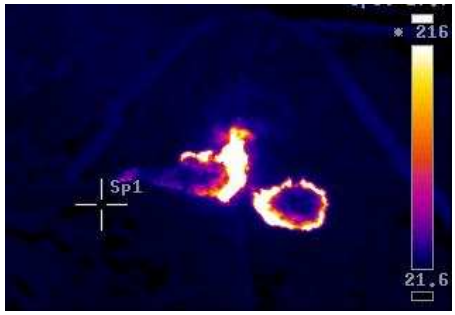
FIRE RESEARCH OVERVIEW
APRIL 2005

Bushfire CRC scrub experimental burns – Project FuSE

As part of the Rural Fire Research programme's involvement in the Australian Bushfire Cooperative Research Centre (CRC), a set of experimental burns were carried out in scrub fuels at Lake Taylor in Canterbury in March. Named "Project FuSE" (Fire in Scrub Experiments, u representing wind speed), this is the first set of experiments to be carried out in NZ and Australia over the next few years. A major driver for the Lake Taylor experimental burns was the opportunity to study fire behaviour in scrub fuels on steep slopes (from 10º-15º through to steep slopes of over 30°).

The March burns were the second attempt, with the first attempt in December abandoned due to unseasonably wet conditions. However, the weather cooperated in March and we managed to get a run of four good burn days to burn all 5 blocks. The burns represented a major collaborative research effort, with a research team of 12-14 made up of staff from Forest Research's Rural Fire Research programme, CSIRO Forestry and Forest Products Bushfire Behaviour and Management Team, Conservation and Land Management Western Australia, Tasmania Fire Service, University of New South Wales, Department of Environment and Heritage South Australia, and the US Forest Service. The burns themselves were strongly supported by local fire authorities in Canterbury, and without this fantastic support the burn project would not have been able to proceed. Excellent fire behaviour data was collected, including some impressive in-fire video footage and thermal imagery of fire growth and development. Data will be analysed and interim reports produced in the coming months.



A further round of scrub burns is planned in Canterbury from next summer onwards, and is likely to be carried out over at least 2 seasons.

Fraser Townsend will be travelling to South Australia in May to assist with Bushfire CRC experimental burns in scrub fuels, further cementing the linkages with Australian fire researchers and continuing the collaboration on scrub fire modelling under Project FuSE.

Project staffing

In addition to Fraser Townsend, who joined the Rural Fire Research programme in October last year as a full time Fire Research Technician (see *Fire Research Overview* December 2004 edition), there have been other recent additions of staff to the programme.

GIS specialist, Caroline Coquerel, started a 6-month contract in January. Originally from France, Caroline has worked as a GIS consultant in projects around the world, most recently in the Dominican Republic. She is involved in a number of GIS-related projects for the fire programme, including development of mapping applications for fire management and a review of fire growth modelling applications for potential use in NZ.

Tonja Opperman commenced work in January on a 12 month contract. Tonja is from the United States, and is a fire ecologist and fire management specialist with the US Forest Service. She will be involved in a range of projects, including mapping and fire growth modelling work with Caroline, fuel modelling, firebreak breaching studies, and fire risk modelling.

Tonja's husband, Todd, is also currently working with the programme, assisting with field work and the fire climatology analysis for a project funded by the NZ Fire Service Commission Contestable Research Fund. Todd is involved in fire control with the US Forest Service.

In addition to these new staff, we also took on a number of seasonal staff to assist with the field work and sampling associated with the experimental burns from December through to March.

New Technology Transfer Plan

A new technology transfer plan has been produced, following feedback on the review document sent out to members of the Fire Research Working Group last year. This plan streamlines our technology transfer activities and publications, to ensure that we continue to disseminate research outputs and knowledge from the programme effectively and regularly. The major changes are the discontinuation of the *Fire Research Update* newsletter, and the production of the *Fire Research Overview* newsletter on a quarterly basis. A copy of the plan will be circulated to members of the Fire Research Working Group.

Grassland curing research

The grassland curing research is now proceeding as a joint project within the Bushfire CRC, being led by the Rural Fire Research programme. This past summer involved a pilot field sampling study in Canterbury and the Australian Capital Territory (ACT), aimed at developing a robust sampling method for an Australasian-wide sampling programme commencing next summer. The project will investigate the use of remote sensing, pasture models and soil moisture relationships, bringing together Australian and NZ researchers and fire management agencies to work together on developing methods of both assessing current and predicting future levels of grassland curing. Project reports and work planned in NZ will be communicated through the Rural Fire Research programme and members of the Fire Research Working Group.

Other news

The social science and fire suppression resource productivity research described in the December *Fire Research Overview* is continuing, and updates of progress with this work will be communicated over the coming months.

FOREST AND RURAL FIRE RESEARCH

Forest Research
University of Canterbury
PO Box 29237
Christchurch
Tel: 03 364 2949
Fax: 03 364 2812

Grant Pearce
Cell: 0274 712 840
Grant.Pearce@forestresearch.co.nz
Stuart Anderson
Cell: 025 294 4469
Stuart.Anderson@forestresearch.co.nz
www.forestresearch.co.nz/fire

forest research