

Rural Fire Research Workshop 2010 “PROMOTING RESEARCH ADOPTION”

End user group discussion session

To address the opportunities, obstacles to, and mechanisms for enhancing research adoption
9 December 2010

Four groups were rotated through 4 topics addressing the following questions:

- (1) What research can be implemented? (Based on what has been presented, or is available from NZ or overseas).
- (2) What are the barriers to implementation of research by end-users?
- (3) How can the research programme assist in the uptake of the research? (i.e. technology transfer activities)
- (4) What other research could be done to address end-user needs? (i.e. to support uptake of existing research findings, or new research to address other needs)

Question 1: What research can be implemented?

(Based on what has been presented, or is available from NZ or overseas)

Facilitator: Lisa Langer (Scion),
Scribe: Paul N Baker (Manager Rural Fire, Napier)

The following summarise the comments of the workshop participants by paragraph heading. The comments are as they came from participants.

Community:

- Relate NZ Fire Danger Ratings (NZFDR) to trigger points. Half Grapefruit and other signage are examples.
- How does the public get information to do anything with increasing fire danger?
- Trigger points are required for different fuels from grass to forest and different actions need to be associated with these for the public to take from low to extreme NZFDR readings for the fuels. Ensure that this is embedded in planning.
- Establish upper limits for fire permit burns based on the NZFDR.
- Prepare a community to either "stay and defend" or to "go early".

Public communication:

- What should be communicated and how? A range of education media is required. Cover various topics. Target: children, property protection, fuel reduction and defensible space, liabilities etc. Use different tools for different audiences. An extension of what we have now is required.
- Identify where communication funding is best spent. Focus on schools and students taking messages home to parents and family to improve practices.
- Use different tools between schools and adults for property protection and defensible space.

- Work alongside Police in mitigation of deliberately lit fires.
- Take advantage of any recent fire events to get fire messages across. Improve landowners' awareness of the need for insurance, their liabilities and of the need to graze the forest floor to reduce fuel loads.
- Landowners need to be aware of the resources to undertake fire fighting.
- Landowners need to be aware of the need for early notification and deployment of resources to fires.
- There are no NZQA Standards for social research. Powers are needed to implement information.
- Urban and rural fire fighting volunteers need uptake of Bushfire CRC findings.
- Get farmers to focus on fire safety in their communities.
- Explain "trigger points" better to the public and the industry.
- Produce a paper that summarises all that we have learnt in fire and how this can be presented to the community. Do we know all of what is available? How does the new information fit into the whole "big picture?"
- Consider "deep survival" as an educational element. I.e. Pre-fire information is in place and known. During a fire event, the individual and community know what to do.

Fire Behaviour:

- More research is required on ignition trigger points.
- Use the NZFDR data for the upper limits of prescribed burns. Define these figures.

Management:

- Conduct broader risk assessments and determine the implications of these ensuring that they are not limited to fire risk.
- A much broader risk assessment is required in rural fire. This could include but not be limited to Pike River Coal situations, Tamahere Coolstores etc. (AS/NZS ISO 31000:2009 replacing AS/NZS4360:2004.) The risk assessment needs to be quantitative and objective, not "fluffy".
- Risk management needs to be more prominent as does a sequence and framework to implement this through other organisations. The process needs to be specified and linked to referenced research documents. Focus on the 4 E's. (Engineering, Enforcement, Education, Encouragement.)
- Sift international literature and present the options most likely to be best used in New Zealand. Summarise these international tools.
- Securing more resources, as we are research rich and resource poor.
- Productivity calculators are required for aircraft operations in fire.
- Research work in "human factors" (Richard Parkers work) needs to feed through to training materials. (SCION - FRSITO- presenters etc.)
- Stronger links to the Police need to occur to reinforce joint works on human caused fires. Police will listen more if the information is backed up by for example "The Australian Institute of Criminology" than the Bushfire CRC.
- Dissemination of Incident Management Team behaviour research by Peter Hayes and Christine Owen.
- Measure how well existing fire research was implemented and how it was done.

General:

- Adopt an "international Glossary of Fire Terms".
- Use Defence Force resources more.
- Improve linkages to fire research and ensure that this underpins actions more.
- Undertake more research into rural fire volunteers. Follow up on New Zealand Fire Service's work. Was this effective? What happened? Extract the learning's from NZFS work.

Question 2: What are the barriers to implementation of research by end-users?

Facilitator: Grant Pearce (Scion),

Scribe: Russell Barclay (Manager Rural Fire, Dunedin)

The following summarise the comments of the workshop participants:

- Part time fire managers. Not enough time to interpret
- Small organisations versus large agencies that have time for research adoption managers
- Involvement of end users from outputs of research, and how can they input into the outcomes.
- Identify your target – be clear who the end user is
- No clear objectives towards what the outcomes are going to be

- Some have resistance to change and want to continue as is. If it isn't broken don't change.
- Lack of succession planning,
- Too many old timers not enough young people coming through "succession".
- Business as usual focus
- Why change things if they are working ok

- Money constraints
- Response focused – little money spent on research/readiness & reduction
- Political and economic restraints
- Legislation – lack of legal reasons for doing it
- Consent process not user friendly and requires money to undertake actual processes

- Using different medium to get the right message across
- Different knowledge requirements by end users, so need a range of tech transfer
- Different end users need in a form they understand
- Keep it simple for all users as some people have trouble understanding what is required
- Pitch information & research at the right level
- Terminology between research group and end-users need to be on the same level
- Researchers may not be the right people to undertake tech transfer notes
- Too difficult to understand and apply to end users
- Lack of committee engagement and use of expertise
- Lack of communications to the public
- Lack of knowledge transfer between agencies and countries – i.e. lessons learnt/not being passed onto those who need it most

Question 3: How can the research programme assist in the uptake of the research? (I.e. technology transfer activities)

Facilitator: Veronica Clifford (Scion),

Scribe: John Rasmussen (Manager Rural Fire, Palmerston North)

The following summarise the comments of the workshop participants:

- Fund and employ an applied Researcher/ Practitioner Communicator.
- Undertake National Workshops that include external groups like Federated farmers, Forest Owners Association, Farm Forestry Association and other interest groups. Need to advertise to these external groups.
- Researchers attend Regional Workshops and undertake Road shows. Provide realistic examples using the Manuals and Fire behaviour, using the helmet cameras, Prometheus training during events or during exercises. Provide onsite tutoring and observation using these tools.
- Utilise small video clips, DVDs, provide Links, Lessons Learned and internet as means of transferring information.
- Current Tech transfer is good but it doesn't get to Crew Leaders and Crews. There needs to be more easily used guides from Fire Fighter up. Such as a "Dummy Guide" or "Janet and John" versions.
- Rural Fire Management Handbook and Orange Fire Behaviour Guide are sources to contain updated material.
- New technology needs to be fed into national training resources and material e.g. Intermediate Fire behaviour course.
- Look for international models like FLAM Fireline assessment model in the USA
- Produce an easy understood model of what is in the Green book.
- General summarised versions are useful to interested parties e.g. farmers and foresters.
- Look at means of getting information into New Zealand Fire Service.
- Some current Transfer Note implementation has no practical application, i.e. a User Guide. Again there is a need to have practical applications to crew leaders and lower levels. Taylor presentations and info to crew leaders and below not just fire managers.
- An issue is the current low up take of knowledge. Estimate 20 %
- There is a need to mainstream fire within an organisation
- Indicate where specific Research should be considered when reviewing plans, policies, and procedures within organisations.

Question 4: What other research could be done to address end-user needs?

(I.e. to support uptake of existing research findings, or new research to address other needs)

Facilitator: Richard Parker (Scion),

Scribe: Dave Hunt (Department of Conservation, Deputy National Fire Coordinator)

The following summarise the comments of the workshop participants by paragraph heading

Fire behaviour

- Ignition sources
- Fire spread
- Validation of fine fuels moisture code
- Processes behind extreme fires

Fire management

- Productivity measures of suppression
- Proscribed burns
- Fitness requirements of firefighters
- Fire fighting techniques and resource use
- Injury data and analysis
- Overlap with forestry
- CAFS and foam standards

Social

- Communication mechanisms to / within communities
- Understanding community culture / structure
- Stay / go evacuation
- Insurance

Other

- Measure the effectiveness of research
- Climate change effects