

## Summary of Discussion – Session 2

*The next 50 years – research possibilities*

The three speakers for this second session were from the CSIRO Sustainable Ecosystems and the Cooperative Research Centre for the Biological Control of Pest Animals (PAC CRC). They each looked at very different aspects of biological control research.

Brian Cooke spoke about the effect of rabbit calicivirus on rabbit populations and asked whether there is still a residual rabbit problem? He drew upon a survey he conducted with the NSW Rural Lands Protection Board officers. He concluded control efforts will be most effective if problems are clearly defined and the control effort is focused at a local level.

In contrast Peter Kerr focused on the myxomatosis and how it is spread amongst rabbits. If myxomatosis is to be most effective either as a lethal control or carrier for fertility control it is important to understand the key constraints: transmission in competition with existing field strains, the proportion of a population susceptible to infection, the availability of insects to carry the virus, and issues of scale over both time and space.

Michael Holland reported on the development of a genetically engineered myxoma virus that stimulates a fertility control response in rabbits.

During the discussion period a number of questions were raised around four key issues:

What is the evidence that fertility control will be useful as a management tool for rabbits? The data obtained from the PAC CRC field trials in which different percentages of female rabbits were surgically sterilized and the productivity of those populations followed for three years was presented. This suggests that if 80% of females are infertile the populations were significantly reduced. There was considerable discussion about the nature and real benefit of that impact and whether it could be achieved practically.

How might fertility control be integrated into the suite of options for rabbit control? This provoked discussion on the integration of rabbit control methods in general. Questions regarding educating people's expectations, when is the right time for optimal effect and the need for extension were raised. A successful program like the Natural Heritage Trust-funded ripping of warrens that occurred post rabbit calicivirus has had significant short-term effect. What will be the long term benefit? How is the current momentum of rabbit control efforts to be maintained?

Have the benefits of rabbit calicivirus been captured?

In some areas yes and in others, no. What should be done and how could the benefits of rabbit calicivirus be introduced more broadly? This implies that the location of where the rabbit problem remains is known. What does the survey of Rural Lands Protection Boards tell us about this? Are urban rabbits an emerging problem? Would orally-delivered rabbit calicivirus help?

Should we be looking for a new third lethal control agent?

Is it likely one is there to be found? Who would do it? Who would pay?

Michael Holland  
CSIRO Sustainable Ecosystems