

Australia's rabbits face all-out viral attack

Ian Anderson, Melbourne

A VIRUS that could wipe out most of Australia's rabbits will be deliberately spread across the country by the end of the month. Australia is pushing ahead with its plan to release the rabbit calicivirus despite warnings by two American scientists that it is "playing with dynamite". They argue that the virus could jump to other species.

The rabbit calicivirus has been at the centre of controversy in Australia since last October, when it escaped to the mainland from field trials being conducted on Wardang Island, about 5 kilometres off the coast of South Australia (This Week, 21 October 1995, p 4). Rabbits infected with the virus, which causes the blood to clot, have since turned up in all states except Tasmania.

Before the virus escaped, Australia was thought to have around 300 million rabbits, which cause damage costing an estimated A\$600 million (about £300 million) a year. The calicivirus has cut the population by several tens of millions already, and farmers have been clamouring for a more widespread release. According to the original plan, the virus would not have been released for another two years. In April, the Minister for Primary Industries and Energy, John Anderson, decided that more tests were needed to ensure public confidence in the virus as a biological control agent.

Since then, virologists at the Australian Animal Health Laboratory (AAHL) near Melbourne have injected the virus into another three native Australian species, the echidna, the koala and the hairy-nosed wombat. The animals were inoculated with a thousand times the dose needed to infect rabbits. "The animals showed no sign of the disease," says Harvey Westbury of the AAHL. These tests have now been carried out in 33 species of native and domestic animals, 31 from Australia and two from New Zealand. "None of them was infected," says Westbury.



A. Henley/Auscope

Fluffy and doomed: but some scientists are worried that the virus may infect other species

Blood samples were also taken from the 160 scientists and cleanup crew who were exposed to the virus on Wardang Island and on the mainland. Tests showed no evidence of antibodies against the calicivirus.

Armed with these results, Anderson announced last week that the virus would be deliberately released as soon as Australia's states and territories and the New Zealand government gave their approval. This is expected early next week in all Australian states except Tasmania, which may insist that the virus is first tested on the Tasmanian devil, a marsupial found only on the island.

But some scientists still claim that the virus has not been adequately tested. In a series of letters to Australian government officials including the Prime Minister, Alvin Smith of Oregon State University and David Matson of the Center for Pediatric Research in Virginia have pointed out that other caliciviruses have jumped species. The rabbit virus might do the same, they argue, particularly if it mutates. Smith is a veterinary scientist who has worked on the calicivirus for 24 years. Matson is a specialist in human caliciviruses. But their fears have been dismissed as groundless by Australian scientists managing the calicivirus programme, and by Frederick Murphy, former director of the US National Center for

Infectious Diseases in Atlanta. They point out that there is no evidence that the virus has jumped species in Mexico, China and Europe, where the disease occurs naturally.

Nicholas Newland, coordinator of the Rabbit Calicivirus Disease Programme, says that the plan is to release 20 rabbits that have been injected with lethal doses of virus at each of 280 sites across Australia. The sites will be chosen to ensure that the virus is present in areas with every type of climate where there are rabbits. "This will maximise its impact and we can monitor how it behaves in each of these areas," says Newland.

Plans are also being drawn up to rip up rabbit burrows with bulldozers after the virus has spread through a population. About 5 per cent of adult rabbits and 10 per cent of rabbits under six weeks old survived the onslaught of the escaped virus, says Brian Cooke, an epidemiologist with the Division of Wildlife and Ecology of the CSIRO, Australia's national research organisation. "The calicivirus will not rid the country of the rabbit," he says. "But the virus will certainly make a huge difference to rabbit numbers." Warrens were not destroyed systematically when the myxomatosis virus was released in Australia forty years ago, which is one reason why rabbits survived. □

A virus out of control

