

Research evolves to face rabbit control challenge

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The Western Australian Department of Agriculture's invasive species science group is asking residents to help them with their latest research into controlling growing rabbit populations.

The release of the myxoma [virus](#) in 1950 led to a dramatic reduction of Australia's [rabbit](#) population but the impact of myxomatosis gradually declined over time as both the myxoma virus and rabbit populations changed genetically.

Now scientists across Australia are in the process of sourcing and releasing a new strain of rabbit haemorrhagic disease virus (RHDV) – otherwise known as the calicivirus – which was introduced in 1996 to

combat a decline in the effectiveness of myxomatosis.?

Department of Agriculture and Food WA researcher Susan Campbell says we don't have the [rabbit population](#) numbers we once did, thanks to current control methods, but what we are seeing nationally is a steady increase in numbers.

Research in WA is part of the national RHD 'Boost' program, run through the Invasive Animals CRC—Australia's largest integrated invasive animal research program.

The program will sample rabbits and assess whether they have been exposed to, and are carrying antibodies to, RHDV and a related benign form of the virus.

Dr Campbell says following its release in 1996, environmental factors such as wetter coastal areas and inland drier land ranges has meant a mixed success rate in how well RHDV knocks down rabbit numbers.?

"We presume the disease is spread by rabbit to rabbit contact but also through the use of vectors, like flies and insects and the behaviour of those vectors is quite different, in those different environments."?

The group is also investigating the role of [insect vectors](#) in the transmission of this virus by sampling flies from the wild and sequencing samples to determine whether a virus is present.

Dr Campbell says the big project nationally is to try and locate and test a more [virulent strain](#) of the RHDV.

"Researchers are looking both overseas and in Australia, and conducting laboratory studies to source, sequence and test various strains of RHDV to identify a suitable, virulent strain for release in Australia," she says.?

"We want people to report RHDV outbreaks in their properties so we can collect those rabbits and look at their serological data to see if they possess antibodies, to the original strain of RHDV that was released.

"Or if they are immune to a particular strain and show those antibodies within their system and that's what we're looking at in WA."?

Dr Campbell says this research will be of great benefit when it comes time to release any new strain(s) of RHDV in future.

Provided by Science Network WA

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