

Bird flu vaccination trial in Aotearoa New Zealand

What is bird flu?

The H5N1 strain of Highly Pathogenic Avian Influenza (HPAI) has spread globally to all areas since December 2021 except Aotearoa, Australia, the Pacific Islands. The likelihood of HPAI arriving on pathways that we manage is low. HPAI is currently spreading internationally in wild birds, which is the most plausible path by which it would reach New Zealand. As information emerges about the distribution of the disease in Antarctica, there will be a better understanding about the likelihood of HPAI reaching New Zealand through wild bird movements.

Once in New Zealand, it could spread by direct contact between infected and healthy birds, or through contaminated equipment and materials, including water and feed.

We are actively monitoring disease spread, particularly towards the Ross Sea region in Antarctica and globally. We're talking regularly with colleagues around the world so we can learn as much as we can about how the disease is behaving as it spreads, and what other countries are doing to manage the disease.

International experience has shown that a One Health approach to the current strain of HPAI is essential. If HPAI is detected in New Zealand or its territories, Biosecurity New Zealand will be the lead agency and will coordinate any response in partnership with the Department of Conservation (DOC) and the Ministry of Health.

How can we protect our manu?

Management options are limited, bird flu in wild birds is not an eradicable disease. Protection of manu means ensuring there are strong healthy populations at multiple locations and having strong biosecurity and quarantine practices. Continuing, and where possible increasing, the great work breeding and protecting vulnerable manu from predators is the highest priority.



Kākāriki karaka (orange fronted kākāriki). © DOC

What about vaccination?

For a few species, using vaccination might be an effective tool during outbreaks to protect a core breeding population to prevent species extinction. It is not possible to vaccinate all our endangered birds, but we can focus on those species in captivity where the full two doses of vaccine can be given.

Vaccination requires two injections under the skin, one month apart. The Poulvac Flufend RG vaccine was developed overseas by Zoetis. Use of vaccination in zoos in Europe has shown the vaccination can be safe and effective across a range of manu.

Use of HPAI vaccines in New Zealand is prohibited. However, the Ministry for Primary Industries has granted approval for DOC to use this vaccine in a controlled trial to test its safety and efficacy in a select number of endangered native birds.

The trial is limited to a small number of threatened native species in specified captive facilities (ten individuals from five species) and is being carried out under strictly controlled conditions by DOC.

What is a vaccine trial?

The aim of the trial is to assess the safety and efficacy of the vaccine in the five species. Once the trial is completed, we will have good evidence about how well the vaccine works and how much protection it might provide to these manu. Vaccination would be used when bird flu has arrived to ensure the protection is recent and strong. There are no plans for large scale vaccinations of wild manu as it requires two injections to provide protection.

The vaccine being trialled in Aotearoa contains inactivated (dead) virus, meaning it cannot cause a bird flu infection. Vaccination should reduce the risk of illness or death and reduce virus shedding, protecting both the individual and flock.

Five species in the vaccination trial:

- Takahē
- Tūturuatu (shore plover)
- Red-crowned kākārīki (as a surrogate for kākārīki karaka)
- Kakī (black stilt)
- Kākāpō



An adult kakī incubating eggs at the DOC captive breeding centre in Twizel. © DOC

The first phase of the vaccine trial on five native bird species is now complete. This involved giving all the birds involved in the trial two doses of the vaccine at least one month apart.

The second phase of the trial is still underway and will be completed by July 2025. This involves regular health assessments and blood tests of the trial birds to monitor their reactions and presence of antibodies.



Adult male tūturuatu on Rangatira, Chatham Islands. © DOC

None of the birds have shown any adverse reaction to the vaccine and initial tests show antibodies have been detected in all five species. However, we need to wait until the trial is complete for a fuller picture and more conclusive results on the potential protection provided by the vaccine against HPAI.

If shown to be effective, the vaccine could be used if HPAI arrived in New Zealand. It would need to be used once HPAI was here to ensure the protection was recent and strong.

Where can I find out more?

For more information about bird flu in Aotearoa visit

- <https://www.doc.govt.nz/our-work/wildlife-health/avian-influenza/>
- www.mpi.govt.nz/HPAI<https://www.mpi.govt.nz/biosecurity/pests-and-diseases-not-in-new-zealand/animal-diseases-not-in-nz/high-pathogenicity-avian-influenza-and-the-risk-to-nz/>

For more information about bird flu overseas visit

- <https://www.woah.org/en/disease/avian-influenza/>

Please send any questions to the DOC HPAI (bird flu) Readiness Team: HPAI@doc.govt.nz