

New fowlpox vaccine available

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A vaccine for the common poultry disease, Fowlpox, has been developed by CSIRO.

A new vaccine developed by CSIRO Livestock Industries to help control the common poultry disease, fowlpox, has been registered for commercial use by one of Australia's leading animal health companies, Intervet Australia Pty Ltd.

The vaccine – fowlpox # 2 – was developed by scientists from CSIRO's Australian Animal Health Laboratory (AAHL) in Geelong, with funding support from the Rural Industries Research and Development Corporation's (RIRDC) Chicken Meat R&D Program.

CSIRO project leader, Dr David Boyle says laboratory studies showed potential candidates for new vaccines were contaminated with

reticuloendotheliosis virus (REV), with the REV provirus integrated into the fowlpox virus genome.

In poultry, REV can produce a runting disease syndrome characterised by weight loss, pallor, occasional paralysis, and abnormal feathering.

The CSIRO team removed the REV provirus from one vaccine strain and two field strains of fowlpox virus using recombinant DNA and molecular virology techniques.

Dr Boyle says testing showed these strains were free of REV, so further work was undertaken, evaluating the safety and efficacy of the strains.

“The strain that performed best – one of the field strains – was tested again in the laboratory and then in field trials,” Dr Boyle says.

Intervet Australia's Technical and Site Manager, Neil Sammons, says the vaccine has proven to be safe, potent and provide birds with at least 50 weeks of protection when vaccinated in the wing web at five and 16 weeks of age.

RIRDC Chicken Meat R&D Program Manager, Dr Vivien Kite, says when work on the new vaccine began in the late 1990s, the two fowlpox vaccine strains available in Australia had proven ineffective in controlling the disease on some poultry farms. While these problems have largely been overcome, she says development of the new fowlpox vaccine will benefit Australia's poultry industry.

“Flock health is critical to the productivity and efficiency of the industry. Having more options to protect birds against fowlpox, and the materials and know-how to develop further vaccines, if needed, will help safeguard Australia's \$2 billion chicken meat and egg industries,” she says.

Fowlpox is a viral disease spread by mosquitoes. Infected birds have wart-like nodules on the non-feathered parts of the head and legs, and occasionally lesions or canker in the mouth, nose and throat.

Source: CSIRO

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