

Agricultural Compounds and Veterinary Medicines (ACVM) Antibiotic Classification System

New Zealand Food Safety (NZFS) has been developing a classification system for all antibiotics registered for use in plants and animals in New Zealand. This work has been undertaken as part of an antibiotic reassessment programme.

NZFS has recognised the importance of having a New Zealand specific antibiotic classification system to support decision making on antibiotic use by veterinarians and plant health professionals. As such, the antibiotic classification system will now be prioritised, and tranches 2 to 4 of the antibiotic reassessment will be delayed until the classification system is completed.

The classification system will outline the importance of each antibiotic based on the potential consequences to public health of increased antimicrobial resistance, and the need for their use in veterinary medicine and plant/crop health. The New Zealand criteria for the antibiotic importance classifications have been developed after an evaluation of the classification criteria applied by the World Health Organization (WHO) to antibiotics used in humans, the World Organisation for Animal Health (WOAH) to antibiotics used in animals, and with reference to the New Zealand Veterinary Association (NZVA) classification system.

Three classifications have been established for antibiotic agricultural compounds: critically important antibiotic, highly important antibiotic, and important antibiotic.

Antibiotic agricultural compounds are classed as **critically important** when they:

- have few or no suitable therapeutic alternatives in human and/or animal medicine or horticultural use in New Zealand; and
- are considered critical to the clinical treatment and resolution of disease caused by bacteria in humans, animals, and/or plants; and
- have a scientifically known and significant susceptibility to the development of AMR from either direct use or cross-resistance from another antibiotic or class of antibiotics.

Antibiotic agricultural compounds are classed as **highly important** when they:

- are considered significantly important to the clinical treatment and resolution of disease caused by bacteria in humans, animals, and/or plants; and
- have a recognised and/or demonstrated potential for the development of AMR from either direct use or cross-resistance from another antibiotic or class of antibiotics.

And finally, antibiotic agricultural compounds are classed as **important** when they:

- are considered important to the clinical treatment of disease in humans, animals and/or plants; and
- have characteristics that may lead to the development of AMR from either direct use or cross-resistance from another antibiotic or class of antibiotics.

Penicillins, third and fourth generation cephalosporins, and macrolides have already been assigned classifications as part of the reassessment programme. The classifications can be found on the Ministry for Primary Industries' website:

<https://www.mpi.govt.nz/animals/veterinary-medicines-acvm/antimicrobial-resistance>. The website will be updated to include the classifications of the remaining antibiotics when the

classification system is complete in 2024. The NZVA classification system should be followed until the NZFS classification has been completed.

Following completion of the classification system, each product will undergo a reassessment review of appropriate dose rates, indications, and withholding periods. Antibiotic labels will be updated accordingly and will include an importance classification and prudent-use statement.

The remaining tranches of antibiotics to be reassessed will be organised as follows:

- Tranche 2: Veterinary and horticultural aminoglycosides, fluoroquinolones, lincosamides, and 1st/2nd generation cephalosporins
- Tranche 3: Fusidic acid, tetracyclines, sulphonamides and trimethoprim, and polypeptides (zinc bacitracin and polymyxin)
- Tranche 4: Amphenicols, nitrofurans, nitroimidazoles, pleuromutilins, and virginiamycin

Horticultural aminoglycosides (streptomycin and kasugamycin) will no longer be reassessed in a separate tranche, instead they will be reassessed as part of tranche 2 alongside veterinary aminoglycosides.