
New tools and methods: a bridge from research to pest control – 2

Continuing the development, registration and efficacy testing of norbormide against both *Rattus rattus* (Ship rats) and *Rattus norvegicus* (Norway rats)

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Previously we have reported on the registration of para-aminopropiophenone (Predastop®) for predator control, and cholecalciferol with diphacinone (Double-Tap®) for “low-residue” rodent control. Norbormide is a uniquely selective “low residue” rat toxicant with rats being 100 to 150-fold more sensitive to norbormide toxicity than most other mammals and birds, and is our current focus. Lack of susceptibility has been shown in 50 species, including five bird species, numerous mammals, and nine primate species, with acute studies complemented by mechanistic research explaining the species selective effects of norbormide at a vascular and sub-cellular level. We have overcome the taste aversion associated with this a.i when it was first discovered as a candidate rodenticide and established the efficacy of norbormide-containing baits in laboratory studies targeting rat infestations in agricultural settings on poultry farms and achieved 100% reductions of wild Norway rat (*Rattus norvegicus*) populations. In larger scale field trials in conservation settings targeting ship rats (*Rattus rattus*), using the same new 1% norbormide paste baits, and a baiting strategy with prefeeding, independent assessors recorded a 100% reduction in rat abundance at test sites and no reduction at the untreated control site. Plans are progressing to complete product development, scaling production and registration in NZ as a precursor to making the product more widely available.