

Strategy and serendipity: reflections on the search, release and establishment of a biocontrol agent for clover root weevil

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Chance frequently leads to unexpected discoveries in science, and astute researchers following good scientific practice can create the conditions to identify and benefit from serendipity. The classical biocontrol programme for the clover root weevil *Sitona lepidus* Gyllenhal (Coleoptera: Curculionidae) provides an example of this synergy. Little was known of the natural enemies of *S. lepidus* when it became an economically important pasture pest in New Zealand in the 1990s. We outline the approaches we adopted to undertake a classical biocontrol programme on limited resources, that has culminated in the widespread successful establishment of an Irish biotype of *Microctonus aethiopoidea* Loan (Hymenoptera: Braconidae) throughout the North Island and much of the South Island by 2013. The strategy adopted in this programme was based on the knowledge and expertise that New Zealand biocontrol practitioners had gained from prior introductions and the access to advice, resources and research facilities through international collaborations. The serendipity involved the unexpected discovery of the Irish biotype of *M. aethiopoidea*. This asexual semi-gregarious biotype has biological attributes that not only enable rapid establishment, population increase and dispersal, but also to remain reproductively isolated from the Moroccan biotype that provides control of *S. discoideus* Gyllenhal in New Zealand.

