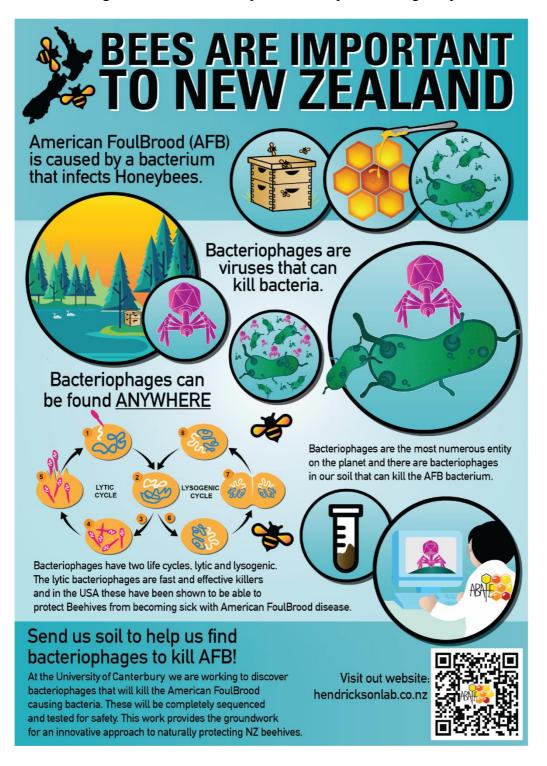
## **Supplementary Materials**

**Supplementary Figure 1.** An infographic was distributed to beekeepers to inform them of the research being undertaken and to request their help in sourcing samples.



**Supplementary Figure 2.** Host range of *P. larvae* phages on *P. larvae* bacterial isolates from New Zealand. Black boxes indicate full spot clearing, grey boxes indicate individual plaques were observed, and white boxes indicate no cell lysis has occurred.

													P	. la	rva	е												
Isolated Phage	PI-F1A	PI-WAI	PI-2017	PI-TP	РІ-СНСН	W19_07823	W19_07831	W19_08105	W19_07820	W19_07816	W19_08037	W19_07813	W19_07808	W19_07832	W19_07815	W19_08035	W19_07810	W19_08041	W19_08099	W19_08100	W19_08078	W19_08082	W19_08091	PI-2006	W19_07957	W19_08023	PI-P1627	W19_08094
Callan																												
Dash																												
Lilo																												
LunBun																												
ABAtENZ																												
Logan																												
Ted																												
Dante																												
AJG77																												
WildCape																												
UtuhinaGold_Zacery																												
GIW2016																												
Ollie																												
FutureBees																												
ApiWellbeing																												
Carlos																												
Rae.2Bee1																												
GaryLarson																												
Lena																												
Jacinda																												
TonyLawson77																												
Bob																												
BarryFoster_Benicio																												
Rosalind																												
Bloomfield																												
NHScienceFair																												
Freya																												

**Supplementary Figure 3.** Cocktail two and cocktail tested for their effectiveness against each of four bacterial strains; PFR-Pl-2017, PFR-Pl-2006, W19-08100 and Pl-P1627 with the substitution of phage Callan for phage Dash.

