

**Supplementary figure 1. (A)** VIRIDIC plot of intergenomic sequence similarity, aligned genome fraction and genome length ratio for 105 isolated *P. syringae* phages. **(B)** Left, phylogenetic tree of all 13 phylogroups within P. syringae. Middle, bar chart indicating the number of phages infecting each isolate. Right, overview of the broadest covering phage combination. **(C)** Bioassay using a six-phage cocktail demonstrates significant reduction in the amount of bacetrial specks caused by *P. syringae pv. tomato* 14 days post infection (p-value=5.2\*10-8, Wilcoxon test). **Unpublished data.**