

Oryctes Virus Bioassay 2

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1 Methods

Adult beetles were taken from the rearing facility on September 1. Each beetle was measured, weighed, and provided with a slice of banana. Beetles were dosed with virus sample "ORV B M2". The 1 ml sample was mixed with 1 ml of 10% sucrose plus a very small amount soap. Beetles were dosed on September 7 and again on September 10. Half of the beetles were dosed by oral injection of 10 microliters of virus suspension. These were provided with a slice of banana immediately after dosing. The remaining half were dosed by infusing banana slices with 10 microliters of virus suspension. Beetles are being checked every Monday and Friday for feeding activity and mortality.

On October 16, all surviving test beetles were dosed again with ORV B m2 using the banana slice infusion method with 50 microliters of virus suspension applied to each banana slice. This time, the virus aliquot was not diluted and neither soap nor sugar were added.

This bioassay was discontinued on November 24, 2010. Treated and untreated beetles were placed in plastic bags and frozen.

2 Results

Despite the fact that each beetle was dosed on three occasions, no significant mortality was observed (Figure 1).

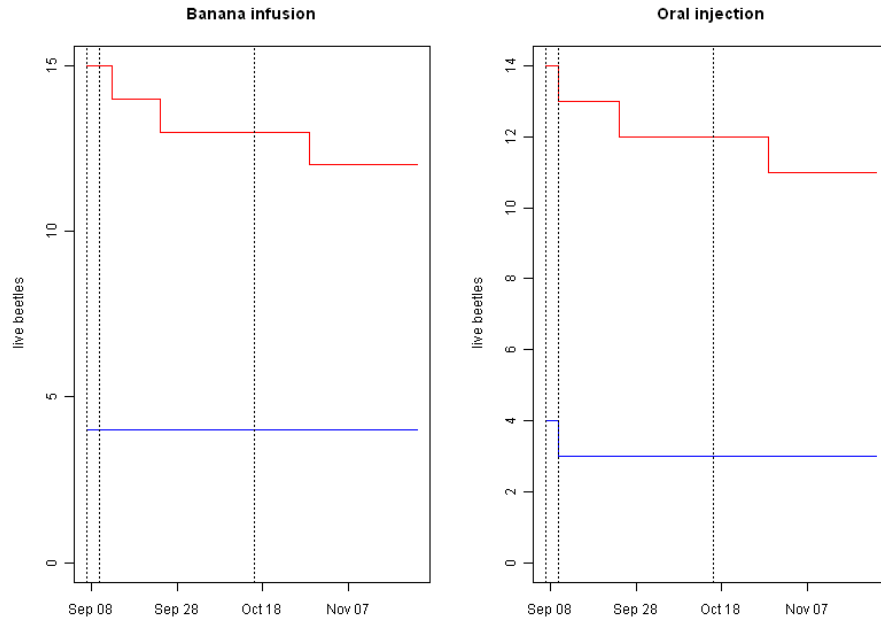


Figure 1: Survival curves for two groups of CRB adults. Each group was triple dosed with virus sample ORV B M2. Red lines are for beetles does with virus; blue lines are for experimental controls. Dotted vertical lines indicate dates of dosing.

3 Discussion

The Guam beetles are resistant to ORV B M2 and/or the virus has been in-activated. Note that someone had removed all of our virus samples from the refrigerator sometime after September 10 and these had been left at room temperature until October 16.