

| <u>Ivermectin-Susceptible <i>Anopheles</i></u> |                            |                   |                   |                   |                   |               |               |        |        |        |        |        |        |
|--|----------------------------|-------------------|-------------------|-------------------|-------------------|---------------|---------------|--------|--------|--------|--------|--------|--------|
| <u>Cattle</u>                                  | <u>Standard Ivermectin</u> |                   |                   |                   |                   |               |               |        |        |        |        |        |        |
| DPT  | P-D                        | 3/4               | 7/8               | 11/12             | 15/16             | 19/20         | 23/24         | 31/32  | 39/40  | 46/48  | 55/56  | 63/64  | 71/72  |
| Chi-Square                                     | <b>15.64</b>               | <b>124.8</b>      | <b>108.4</b>      | <b>62.86</b>      | <b>45.01</b>      | <b>10.17</b>  | <b>9.85</b>   | 0.62   | 4.73   | 0.23   | 2.76   | 0.14   | 0.05   |
| P-value  | <b>&lt;0.0001</b>          | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>0.0014</b> | <b>0.0017</b> | 0.4306 | 0.0297 | 0.6283 | 0.0968 | 0.7037 | 0.8320 |
| # Mosq   | 983                        | 176               | 179               | 155               | 308               | 203           | 245           | 103    | 231    | 229    | 128    | 142    | 231    |

  

| <u>Ivermectin-Susceptible <i>Anopheles</i></u> |                                |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
|--|--------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <u>Cattle</u>                                  | <u>Long-Lasting Ivermectin</u> |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| DPT  | P-D                            | 3/4               | 7/8               | 11/12             | 15/16             | 19/20             | 23/24             | 31/32             | 39/40             | 46/48             | 55/56             | 63/64             | 71/72             |
| Chi-Square                                     | 0.30                           | <b>58.16</b>      | <b>72.93</b>      | <b>67.24</b>      | <b>199.4</b>      | <b>125.2</b>      | <b>122.0</b>      | <b>35.37</b>      | <b>167.0</b>      | <b>222.4</b>      | <b>68.34</b>      | <b>100.1</b>      | <b>52.78</b>      |
| P-value  | 0.5836                         | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> |
| # Mosq   | 890                            | 158               | 150               | 109               | 366               | 256               | 224               | 141               | 246               | 334               | 136               | 189               | 180               |

  

| <u>Ivermectin-Tolerant <i>Anopheles</i></u> |                            |                   |                   |                   |                   |                   |        |        |        |        |        |        |               |
|---|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------|--------|--------|--------|--------|--------|---------------|
| <u>Cattle</u>                               | <u>Standard Ivermectin</u> |                   |                   |                   |                   |                   |        |        |        |        |        |        |               |
| DPT   | P-D                        | 3/4               | 7/8               | 11/12             | 15/16             | 19/20             | 23/24  | 31/32  | 39/40  | 46/48  | 55/56  | 63/64  | 71/72         |
| Chi-Square                                  | <b>15.32</b>               | <b>444.6</b>      | <b>145.6</b>      | <b>119.7</b>      | <b>62.56</b>      | <b>15.98</b>      | 3.63   | 1.36   | 1.08   | 0.24   | 0.90   | 1.81   | <b>9.88</b>   |
| P-value                                     | <b>&lt;0.0001</b>          | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | 0.0566 | 0.2439 | 0.2991 | 0.6236 | 0.3424 | 0.1784 | <b>0.0017</b> |
| # Mosq                                      | 3,301                      | 755               | 686               | 535               | 1,025             | 1,064             | 1,108  | 510    | 510    | 675    | 848    | 1,323  | 1,532         |

  

| <u>Ivermectin-Tolerant <i>Anopheles</i></u> |                                |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
|---|--------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <u>Cattle</u>                               | <u>Long-Lasting Ivermectin</u> |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| DPT   | P-D                            | 3/4               | 7/8               | 11/12             | 15/16             | 19/20             | 23/24             | 31/32             | 39/40             | 46/48             | 55/56             | 63/64             | 71/72             |
| Chi-Square                                  | <b>8.658</b>                   | <b>295.3</b>      | <b>159.1</b>      | <b>325.4</b>      | <b>500.9</b>      | <b>597.5</b>      | <b>260.5</b>      | <b>149.9</b>      | <b>165.1</b>      | <b>245.6</b>      | <b>299.4</b>      | <b>410.7</b>      | <b>162.7</b>      |
| P-value                                     | <b>0.0033</b>                  | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> | <b>&lt;0.0001</b> |
| # Mosq                                      | 3,078                          | 728               | 554               | 476               | 935               | 1,216             | 969               | 539               | 554               | 739               | 954               | 1,400             | 1,247             |

Supplemental Table 2 presents the Mantel-Cox survival curve comparison of *Anopheles* (Susceptible or Tolerant) survival 7 days post blood meal when fed on control cattle or ivermectin-treated cattle (Standard or Long-Lasting) at each day post treatment (DPT) time collection. All mosquitoes captured pre-dose (P-D) were combined. Comparisons that have significantly reduced survival in the treated group compared to control are in bold. # Mosq is the total number of mosquitoes captured by the control and treatment cattle at that timepoint.