

**Supp data 1: Insecticide dosage per treated hut surfaces as estimated from the difference between the volume of the insecticide solution before and after spraying (BH = bottom half, TH = top half, C = ceiling, a.i. = active ingredient)**

| Insecticides                | Hut # | Huts       | Hut Surface area m <sup>2</sup> | Hut Sprayed surface m <sup>2</sup> | Expected volume of application in ml (30ml/m <sup>2</sup> ) | Actual volume of application in ml | Difference in ml | Percentage volume applied | Target dose a.i. (g) / m <sup>2</sup> | Actual application a.i. (g /m <sup>2</sup> ) | Difference in dosage a.i. (g/ m <sup>2</sup> ) |
|-----------------------------|-------|------------|---------------------------------|------------------------------------|-------------------------------------------------------------|------------------------------------|------------------|---------------------------|---------------------------------------|----------------------------------------------|------------------------------------------------|
| <b>Actellic 300 CS</b>      | 5     | Full spray | 19.98                           | 19.98                              | 599.4                                                       | 790                                | 190.6            | 131.8%                    | 1                                     | 1.37                                         | 0.37                                           |
|                             | 15    | Full spray | 19.63                           | 19.63                              | 588.9                                                       | 760                                | 171.1            | 129.0%                    | 1                                     | 1.34                                         | 0.34                                           |
|                             | 9     | BH+C       | 19.26                           | 12.52                              | 375.6                                                       | 400                                | 24.4             | 106.5%                    | 1                                     | 1.06                                         | 0.06                                           |
|                             | 16    | BH+C       | 20.54                           | 13.49                              | 404.7                                                       | 500                                | 95.3             | 123.5%                    | 1                                     | 1.24                                         | 0.24                                           |
|                             | 7     | TH+C       | 20.1                            | 12.95                              | 388.5                                                       | 400                                | 11.5             | 103.0%                    | 1                                     | 1.03                                         | 0.03                                           |
|                             | 17    | TH+C       | 20.15                           | 13.2                               | 396                                                         | 450                                | 54               | 113.6%                    | 1                                     | 1.14                                         | 0.14                                           |
| <b>Fludora Fusion WP-SB</b> | 13    | Full spray | 20.11                           | 20.11                              | 603.3                                                       | 820                                | 216.7            | 135.9%                    | 0.225                                 | 0.32                                         | 0.09                                           |
|                             | 18    | Full spray | 20.91                           | 20.91                              | 627.3                                                       | 900                                | 272.7            | 143.5%                    | 0.225                                 | 0.34                                         | 0.11                                           |
|                             | 6     | BH+C       | 20.3                            | 12.99                              | 389.7                                                       | 410                                | 20.3             | 105.2%                    | 0.225                                 | 0.24                                         | 0.01                                           |
|                             | 12    | BH+C       | 18.28                           | 11.97                              | 359.1                                                       | 370                                | 10.9             | 103.0%                    | 0.225                                 | 0.23                                         | 0.01                                           |
|                             | 11    | TH+C       | 18.12                           | 11.85                              | 355.5                                                       | 380                                | 24.5             | 106.9%                    | 0.225                                 | 0.24                                         | 0.02                                           |
|                             | 20    | TH+C       | 21.98                           | 14.21                              | 426.3                                                       | 450                                | 23.7             | 105.6%                    | 0.225                                 | 0.24                                         | 0.01                                           |
| <b>SumiShield 50 WG</b>     | 2     | Full spray | 19.84                           | 19.84                              | 595.2                                                       | 850                                | 254.8            | 142.8%                    | 0.30                                  | 0.44                                         | 0.14                                           |
|                             | 10    | Full spray | 19.34                           | 19.34                              | 580.2                                                       | 750                                | 169.8            | 129.3%                    | 0.30                                  | 0.40                                         | 0.10                                           |
|                             | 3     | BH+C       | 19.18                           | 12.51                              | 375.3                                                       | 480                                | 104.7            | 127.9%                    | 0.30                                  | 0.38                                         | 0.08                                           |
|                             | 19    | BH+C       | 20.74                           | 13.68                              | 410.4                                                       | 450                                | 39.6             | 109.6%                    | 0.30                                  | 0.33                                         | 0.03                                           |
|                             | 4     | TH+C       | 19.19                           | 12.49                              | 374.7                                                       | 400                                | 25.3             | 106.8%                    | 0.30                                  | 0.32                                         | 0.02                                           |
|                             | 8     | TH+C       | 19.2                            | 12.49                              | 374.7                                                       | 390                                | 15.3             | 104.3%                    | 0.30                                  | 0.31                                         | 0.01                                           |
| <b>Control</b>              | 1     | Unsprayed  | 21.45                           | NA                                 | NA                                                          | NA                                 | NA               | NA                        | NA                                    | NA                                           | NA                                             |
|                             | 14    | Unsprayed  | 19.76                           | NA                                 | NA                                                          | NA                                 | NA               | NA                        | NA                                    | NA                                           | NA                                             |