

Table S1. The different cells used to assess the behavior of adult rice weevils in rice grains

| Cells used | Size of cell | | Volume (cm ³) of each cell | Number of cells used ^a | Amounts (g) of rice grains ^b | Number of insects ^b |
|---------------------|---------------------------------|----------------|---|--------------------------------------|--|-----------------------------------|
| | base area (cm ²) | Height (cm) | | | | |
| I ² S-1H | 1 × 1 | 1 | 1 | 900 | 738 | 70 |
| I ² S-2H | 1 × 1 | 2 | 2 | 900 | 1476 | 140 |
| I ² S-3H | 1 × 1 | 3 | 3 | 900 | 2214 | 220 |
| I ² S-5H | 1 × 1 | 5 | 5 | 900 | 3690 | 360 |
| 2 ² S-2H | 2 × 2 | 2 | 8 | 225 | 1640 | 160 |
| 2 ² S-3H | 2 × 2 | 3 | 12 | 225 | 2460 | 240 |
| 2 ² S-5H | 2 × 2 | 5 | 20 | 225 | 3690 | 360 |
| 3 ² S-3H | 3 × 3 | 3 | 27 | 100 | 2214 | 220 |
| 3 ² S-5H | 3 × 3 | 5 | 45 | 100 | 3690 | 360 |
| 5 ² S-5H | 5 × 5 | 5 | 125 | 36 | 3690 | 360 |

^a Cells of the same size were pasted together onto a polypropylene board (30 × 30 cm²).

^b Designated amounts of rice grains (*Oryza sativa* L., Yumepirica; short-grain type) containing the specified number of weevils were distributed evenly among all cells on a plate.