**Simulation Parameters**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Simulation 1 | Simulation 2 | Simulation 3 | Simulation 4 |
| **Starting Number of Nests** | 1 | 1 | 1 | 2 |
| **Number of Rows** | 5 | 5 | **10** | **10** |
| **Number of Columns** | 5 | 5 | **10** | **10** |
| **Starting Amount of Food in Nest** | 500 | 500 | 500 | 500 |
| **Starting Number of Food Cells** | 3 | 3 | 3 | 3 |
| **Starting Number of Ants in Nest** | 5 | 5 | **9** | **6** |
| **Strength of New Pheromones** | 1000 | 1000 | 1000 | 1000 |
| **Pheromone Decay Rate** | 50 | **100** | **25** | **25** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** | **5** |
| **1** | *Grid Index 0* | *Grid Index 1*  **Food: 500** | *Grid Index 2* | *Grid Index 3* | *Grid Index 4* |
| **2** | *Grid Index 5* | *Grid Index 6* | *Grid Index 7* | *Grid Index 8*  **Nest Ants: 5** | *Grid Index 9*  **Food: 500** |
| **3** | *Grid Index 10*  **Food: 500** | *Grid Index 11* | *Grid Index 12* | *Grid Index 13* | *Grid Index 14* |
| **4** | *Grid Index 15* | *Grid Index 16* | *Grid Index 17* | *Grid Index 18* | *Grid Index 19* |
| **5** | *Grid Index 20* | *Grid Index 21* | *Grid Index 22* | *Grid Index 23* | *Grid Index 24* |

**Simulation 1**

A sign with a black ant

AI-generated content may be incorrect. **Ant** **Simulation** A sign with a black ant

AI-generated content may be incorrect.