**Supporting Information**

**Sublethal effects of flonicamid on the population growth of** **the grain aphid *Rhopalosiphum padi* (L.) (Hemiptera: Aphididae)**

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**Table S1 The** **life table parameters calculated in *Rhopalosiphum padi***

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| --- | --- | --- |
| Life table parameters | Formula | References |
| Net reproductive rate () |  | Efron and Tibshirani 1993 |
| Finite rate of increase () |  | Efron and Tibshirani 1993 |
| Intrinsic rate of increase () |  | Efron and Tibshirani 1993 |
| Mean generation time () |  | Efron and Tibshirani 1993 |
| Specific age-age period fertility (*fxj*) | Ex/nx | Chi and Liu 1985; Chi 1988; Chi and Su 2006 |
| Age-stage-specific survival rate (*sxj*) | n*xj/*n01 | Chi and Liu 1985; Chi 1988; Chi and Su 2006 |
| Age-specific survival rate (*lx*) |  | Chi and Liu 1985; Chi 1988; Chi and Su 2006 |
| Age-specific fecundity (*mx*) |  | Chi and Liu 1985; Chi 1988; Chi and Su 2006 |
| Life expectancy (*exj*) |  | Chi and Liu 1985; Chi 1988; Chi and Su 2006 |
| Reproductive value (*vxj*) |  | Chi and Liu 1985; Chi 1988; Chi and Su 2006 |

Note: In the above formula, *x* is the time interval (1 day), specific age-age period fertility (*fxj*)is number of produced aphids at age x and period j*,* age-stage-specific

survival rate (*sxj*) is the probability that a newborn will survive to age x and period j, age-specific survival rate (*lx*) is the survival rate of any individual during period *x*, and age-specific fecundity (*mx*) is the average number of aphids produced per female aphid during period x. Life expectancy (*exj*) represents the average life expectancy of individuals at age x and period j; Reproductive value (*vxj*) represents the reproductive value of aphids at age x and period j, that is the contribution to the future population.

**References**

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