Table S2. Summary of Weibull rate ($\mu_F$) and shape ($\beta$) parameter estimates for nonlinear least-squares fits of *An. stephensi* constant temperature survival curves for all temperature–application rate (AR) combinations. Since the model described by Hancock *et al.* (2009) includes a separate term for background mortality rate, we used Abbott's correction (Abbott 1925) to adjust daily proportional survival ($s$) in the fungus-treated groups as follows:

$$s = 1 - \frac{X - Y}{X} \qquad \text{eqn S33}$$

where $Y$ was the proportion survival in a given treatment cup and $X$ was the mean proportional survival in the corresponding controls. For instances in which the mean control survival was lower than that of the treatment (e.g. at the beginning of the experiments in which survival was high in all cups), corrected proportional survival was assumed to equal one. We then fit Weibull curves to the corrected survival data for each treatment using the *nls* function in R (R Development Core Team 2013). The curves took the following form:

$$s(u) = \exp\left[-(\mu_F u)^{\beta}\right] \qquad \text{eqn S34}$$

where $s(u)$ was proportional survival as a function of time since fungal infection, $u$, and $\mu_F$ and $\beta$ were the fitted rate and shape parameters, respectively. Goodness of fit was confirmed visually (Fig. S1).

| | High AR | | Low AR | |
|---|---|---|---|---|
| Temperature (°C) | $\mu_F$ ± SE | $\beta$ ± SE | $\mu_F$ ± SE | $\beta$ ± SE |
| 10 | 0.071 ± 0.000 | 9.19 ± 0.41 | 0.056 ± 0.000 | 7.93 ± 0.41 |
| 14 | 0.115 ± 0.001 | 9.86 ± 0.81 | 0.083 ± 0.000 | 7.16 ± 0.28 |
| 18 | 0.159 ± 0.001 | 11.67 ± 0.94 | 0.113 ± 0.001 | 7.01 ± 0.34 |
| 20 | 0.175 ± 0.002 | 7.09 ± 0.55 | 0.131 ± 0.001 | 5.51 ± 0.43 |
| 22 | 0.200 ± 0.001 | 8.78 ± 0.74 | 0.124 ± 0.002 | 3.64 ± 0.32 |
| 24 | 0.235 ± 0.002 | 6.90 ± 0.62 | 0.158 ± 0.002 | 4.40 ± 0.25 |
| 26 | 0.253 ± 0.002 | 8.93 ± 0.91 | 0.175 ± 0.002 | 4.82 ± 0.30 |
| 28 | 0.254 ± 0.002 | 8.41 ± 0.92 | 0.182 ± 0.001 | 5.44 ± 0.20 |
| 30 | 0.225 ± 0.002 | 6.00 ± 0.45 | 0.162 ± 0.001 | 5.30 ± 0.29 |
| 32 | 0.194 ± 0.002 | 5.92 ± 0.55 | 0.136 ± 0.001 | 5.78 ± 0.37 |
| 34 | 0.125 ± 0.001 | 7.47 ± 0.29 | 0.093 ± 0.001 | 4.32 ± 0.36 |