**Table S1. Köppen-Geiger climate classification of selected settings**

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| **Setting** | **Climate type** | **Characteristics of climate** | **Köppen classificationa** |
| Argentina (Resistencia) | Subtropical | moderately mild and dry winters and a hot, humid summer | *Cwb* |
| Brazil-A (Parana) | Humid subtropical | mild winter dry season, no extreme temperature all year around | *Cfa* |
| Brazil-B(Campinas) | Highland tropical | with lower rainfall in winter, dry and mild winters (rarely too cold) and rainy summers with warm to hot temperatures | *Cwa* |
| Netherlands (Utrecht/Eindhoven) | Maritime | cold winters, warm summers | *Cfb* |
| Poland (Poznack) | Continental humid | variable season weather patterns and large seasonal temperature variance | *Dfb* |

a *C* = Temperate; *D* = Cold; *w* = dry winter; *f* = without dry season; *b* = warm summer; *a* = hot summer

Although being quite different, the subtropical highland climate of Parana, Brazil, and the maritime climate of the Netherlands tend to have temperature and humidity ranges remaining within the optimal conditions for *Toxocara* egg survival. In both cases, the egg embryonation probability was assumed to remain constant throughout the year, and set to range between 50% and 90%, with a most likely probability of 80%.

The subtropical climate of Resistencia, Argentina, is characterized by very hot and humid summers and moderately mild winters, with an average annual temperature of 20.5°C and 1350 mm rainfall. To account for the temperatures above 37°C which may reach up to 42°C from February to October, the egg embryonation probability was set at 10% (0%–30%) for this period. For the remainder of the year the probability was set at 80% (50%–90%).

The highland tropical climate as observed in Campinas, Brazil is tropical but mitigated by elevation. It is characterized by dry winters (although mean temperature is still moderately high) and hot summers. The probability of embryonation from October to March was set at 50% (30%–70%), and at 80% (50%–90%) for the remainder of the year.

The continental humid climate of Poznan, Poland, is characterized by cold winters and hot summers. The cold period was set from October to March, with an egg embryonation probability of 10% (0%–30%). For the remainder of the year the probability was set at 80% (50%–90%) [15].