**Declaration of Importance**

In this manuscript, we showed that the six *Trichogramma* strains tested parasitized *D. fovealis* eggs, indicating that the host egg is adequate for the development of the parasitoid. Among the six *Trichogramma* strains tested, we selected the two best strains to evaluate the susceptibility to different ages of the host egg. We found that the parasitoids have preference for younger eggs of *D. fovealis*. The information obtained in this study indicates valuable *Trichogramma* strains for biological control programs of *D. fovealis* and may help to understand how the parasitoid behaves in front of different ages of the host. The results presented can provide a starting point to improve the management of *D. fovealis* in the field, indicating the *Trichogramma* as an effective agent for the biological control.