



**Figure S1.** Impact of *Fusarium* sp. infection in development and growth of some organs of avocado var. *drymifolia* seedlings. The organs and traits analyzed comprise seedling height or stem length (a), the size and number of apical buds (b and c, respectively), and the number of leaves in seedlings (d). Lines in grey color indicate uninfected plants; yellow color indicates infected plants.



**Figure S2.** Stem-loop hairpin secondary structures of potential new miRNA precursors (pre-miRNA) identified in avocado var. *drymifolia* genome. Those Identifiers assigned and highlighted in yellow correspond to those differentially expressed miRNAs in response to *Fusarium* sp. infection (DEmiRNAs). In the hairpin structure, mature miRNA is shown in red.



**Figure S3.** Hydroponic-based system for growing avocado var. *drymifolia* seedlings in which *Fusarium* sp. infection symptoms can be evaluated over time. The infection is achieved after water is replaced by conidial suspension ( $1 \times 10^6$  conidia/mL), which is refreshed every three days until the end of the experiment (21 dpi in this study).