

Figure S1. Bright field micrographs of WT (**A**) and *dmi3-1* (**B**) roots stained with cotton blue to label *C. trifolii* hyphal walls. Both images show the production of an infection vesicle (white dot) inside the lumen of an epidermal cell at about 48 hpi, suggesting that the fungal developmental programme is not affected by the plant mutation. Bars = $25\mu m$.

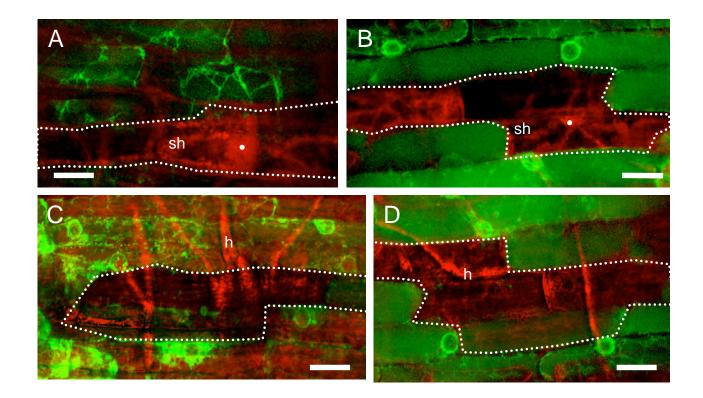


Figure S2. Late stages (about 96 hpi) of infection by *C. trifolii* (A, B) and *P. medicaginis* (C, D) in WT (A, C) and dmi3-1 (B, D) roots. Identical fluorescent ER labeling and color coding as in Figure 1. No GFP fluorescence is visible in the cells (outlined area) where secondary hyphae (sh) of *C. trifolii* have developed from the infection vesicle (white dot), in either the WT (A) or mutant (B) roots. The disappearance of GFP fluorescence is also evident in groups of cells contacted by *P. medicaginis* in both WT (A) and dmi3-1 (B) genotypes. Bars = $25\mu m$.

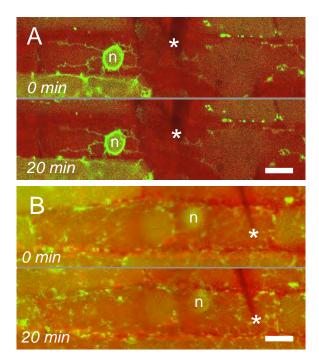


Figure S3. Abolishment of nuclear repositioning in response to physical stimulation of the epidermal cell wall in WT roots. **A.** 0.5 μ M latrunculin-B released into the medium from the microneedle tip (*) immobilizes the ER and hampers nucleus repositioning at the contact site. **B.** Microneedles with a tip diameter of approximately 1μ m (*) do not induce nucleus repositioning in physically stimulated epidermal cells. Bars = 15μ m