Identification and Characterization of a Red-Light Sensor FphA in *Aspergillus flavus*

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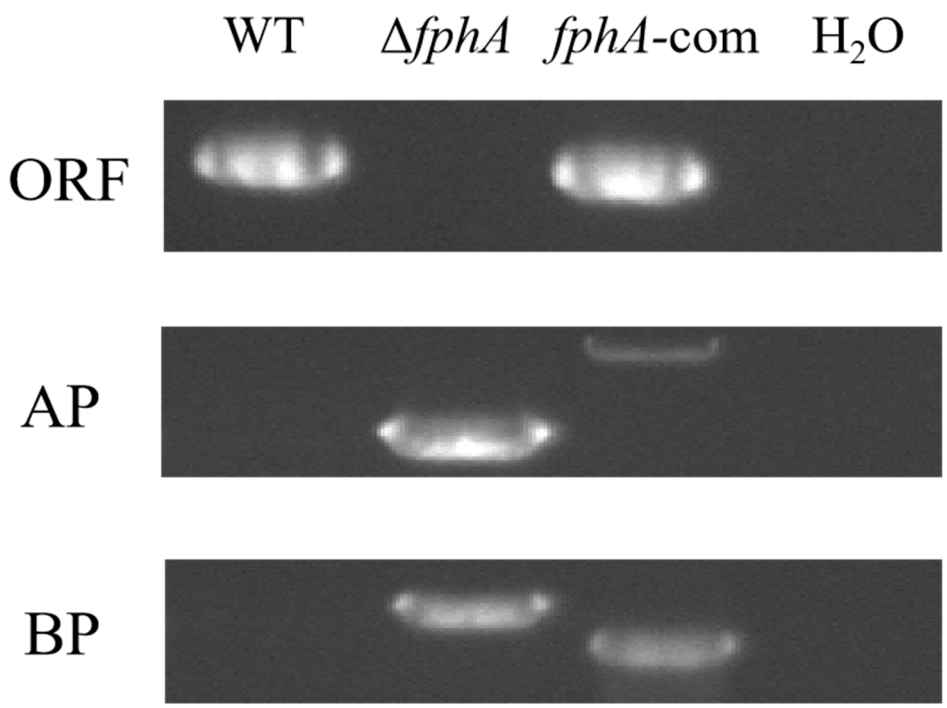
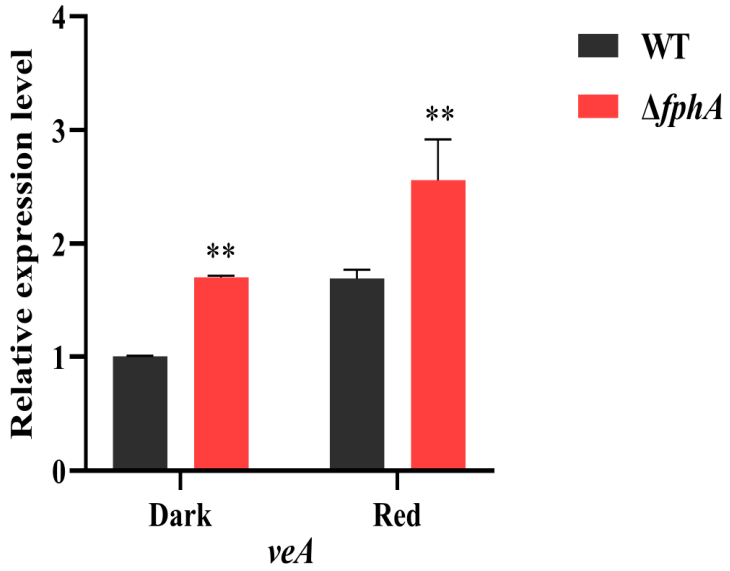
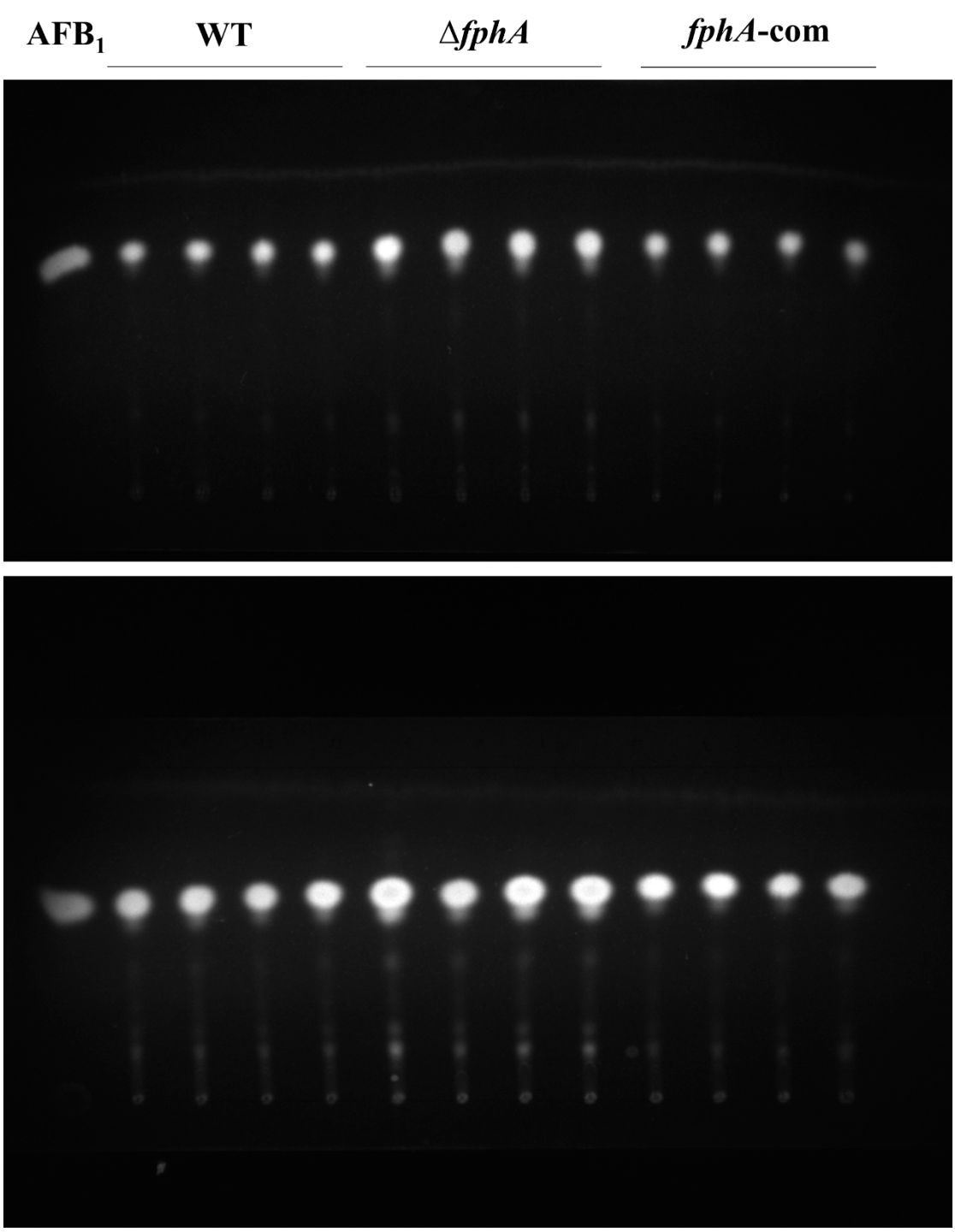


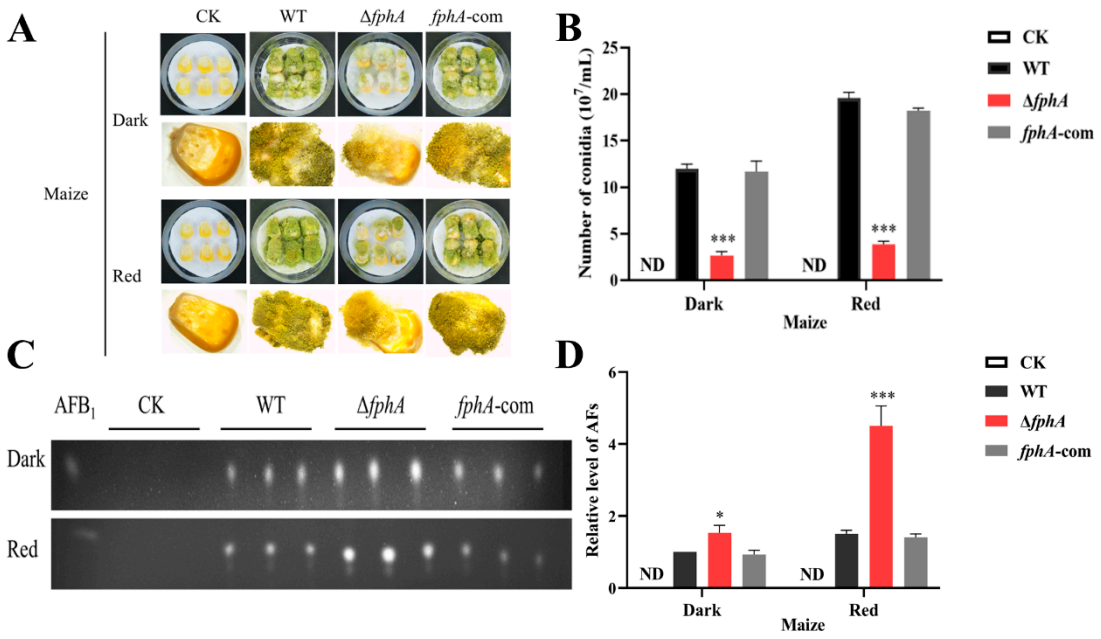
Supplementary Figure S1. PCR verification of WT, Δ*fphA*, and *fphA*-com. ORF represents open reading frame. AP and BP represent A and B homology arm part respectively.



Supplementary Figure S2. Relative expression levels of *velvet A* (*veA*) gene in WT and Δ*fphA*. (**, $p<0.01$).



Supplementary Figure S3. The whole image of TLC plate for analysis of aflatoxins synthesized in WT, Δ*fphA* and *fphA*-com strains. The upper panel represents the TLC plate for aflatoxins from *A. flavus* in the dark, and the lower panel represents the TLC plate for aflatoxins from *A. flavus* in red light.



Supplementary Figure S4. The effect of FphA on pathogenicity of *A. flavus*. (A) The morphology of maize infected by WT, Δ*fphA* and *fphA*-com of *A. flavus*. (B) The comparison of conidia number in maize infected with WT, Δ*fphA* and *fphA*-com strains. (C) TLC chromatography of aflatoxins in maize infected with WT, Δ*fphA* and *fphA*-com strains. (D) AF levels from maize infected with WT, Δ*fphA* and *fphA*-com as in C. ND represents not detectable. (*, $p<0.05$; ***, $p<0.001$).