

Figure S1. DEGs between the WT and *Dwf* mutant.

(A) GO term enrichment analysis of the DEGs, ‘★’ indicates that the hormones are associated with a biological process. (B) KEGG pathway database enrichment analysis of the DEGs. (C) Number of up-regulated and down-regulated genes between the WT and *Dwf* mutant.

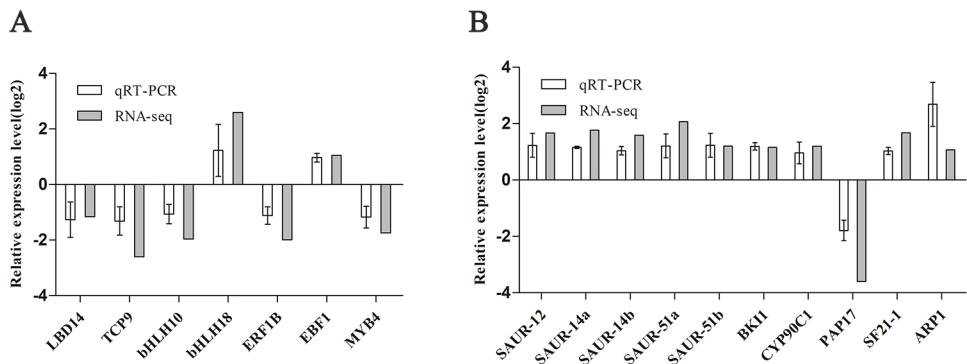


Figure S2. Confirmation of the DEGs by quantitative real time-PCR (qRT-PCR). A total of 17 DEGs obtained from RNA-seq analysis were selected for qRT-PCR validation. (A) Seven transcription factors and growth-related genes. (B) Ten genes related to hormone-signaling pathway. Log2FC values of RNA-seq and qRT-PCR are presented.

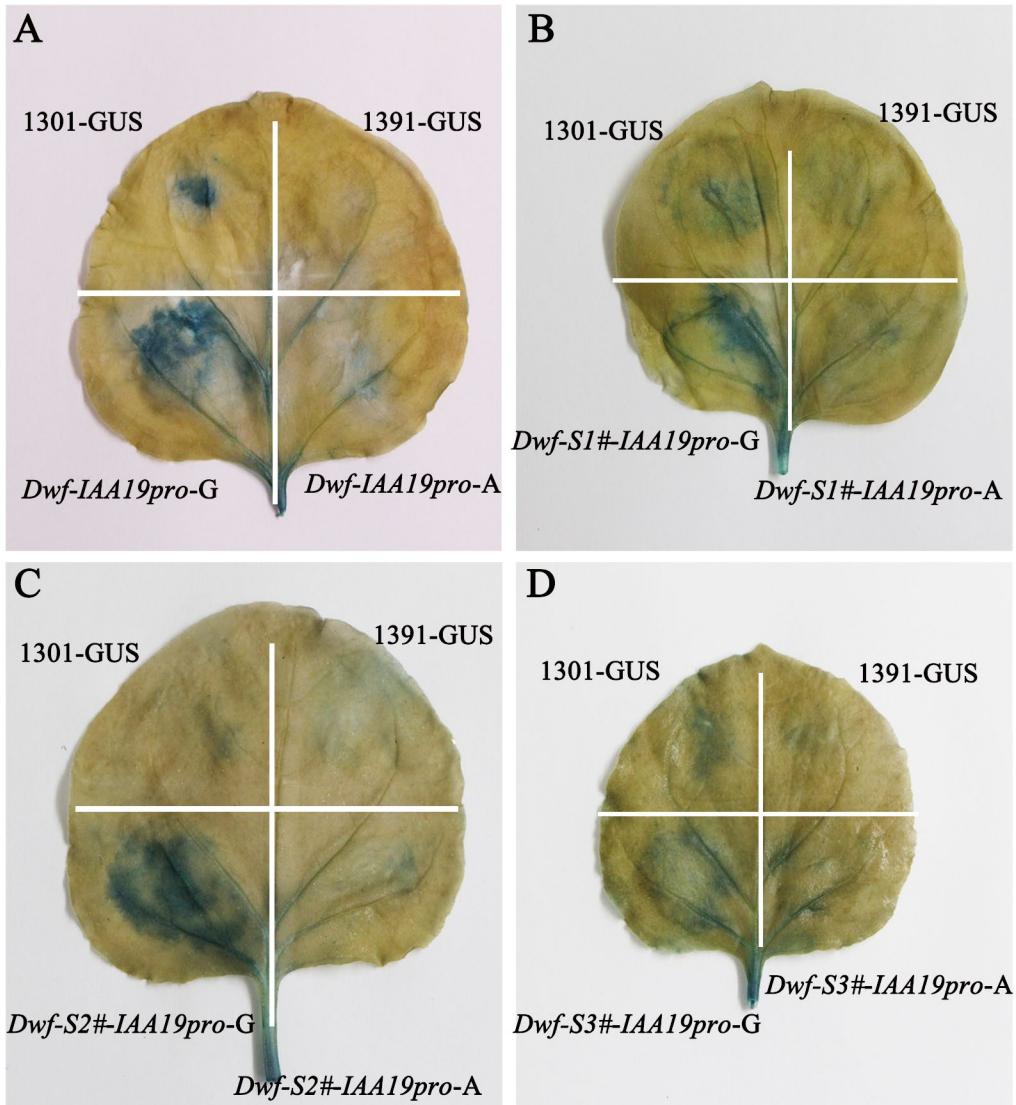


Figure S3. The GUS activity of *MbIAA19* promoter in tobacco leaves.

(A) The staining level of GUS protein in tobacco leaves, initiated by the altered promoters of *MbIAA19* in *Dwf*. (B) The staining level of GUS protein in tobacco leaves, initiated by the altered promoters of *MbIAA19* in *Dwf* seedlings 1# (*Dwf-S1#*). (C) The GUS protein level in tobacco leaves, initiated by the altered promoters of *MbIAA19* in *Dwf* seedlings 2# (*Dwf-S2#*). (D) The GUS protein level in tobacco leaves, initiated by the altered promoters of *MbIAA19* in *Dwf* seedlings 3# (*Dwf-S3#*). The staining level represents the abundance of GUS protein in the leaves.

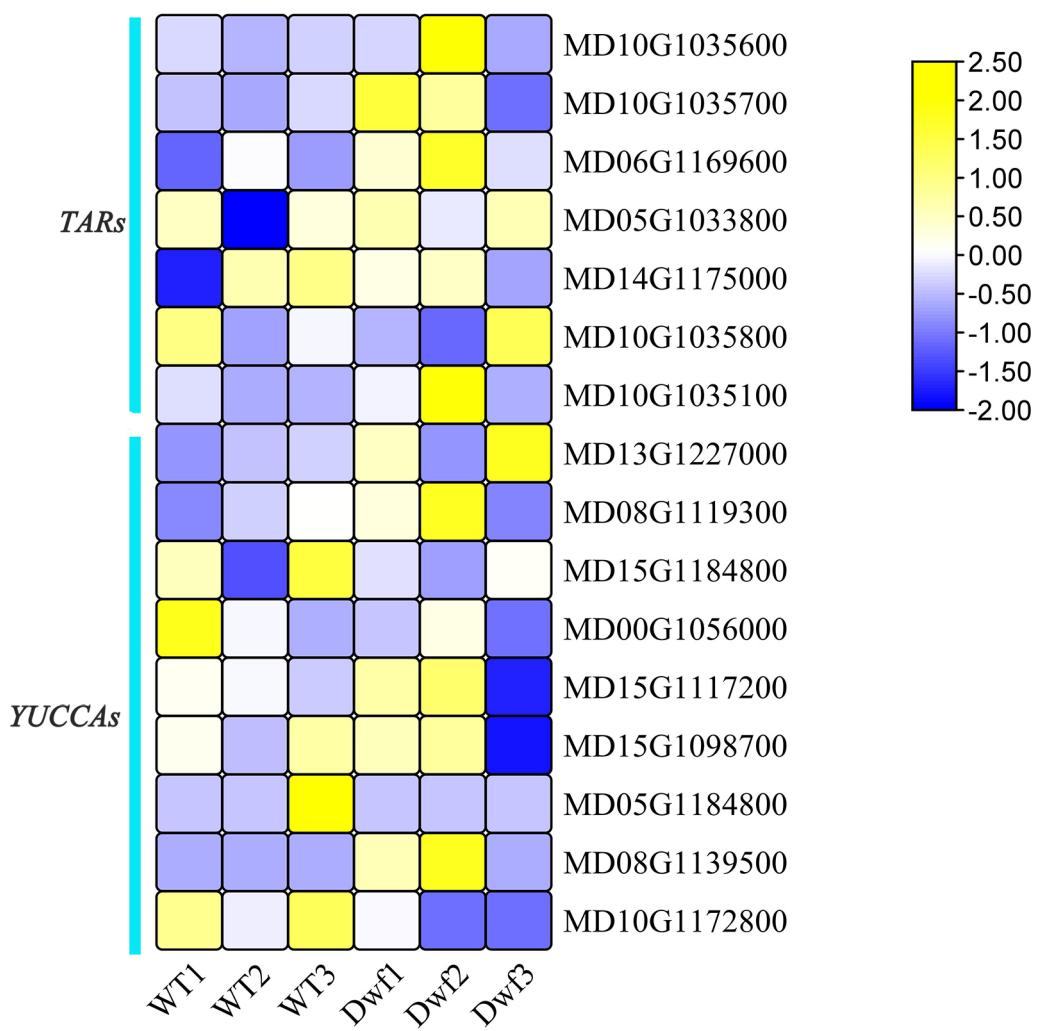


Figure S4. A heat map of seven *TAR* genes (tryptophan aminotransferase-related gene) and nine *YUCCA* genes (indole-3-pyruvate monooxygenase gene) in the *WT* and *Dwf* identified using RNA-seq.

Table S1. Primers used in this study

| Purpose                   | Primer name     | Sequence (5' to 3')                           |
|---------------------------|-----------------|---|
| Primers for gene cloning  | IAA19-CDS-F     | ATGGCCAAGAAAGGTTAGGG                          |
|                           | IAA19-CDS-R     | TTATGGCTCCTCTCCATTGTT                         |
| RNAi-IAA19                | IAA19-forward-F | gagaacacggggacttagaGCCAAAGAAAGGTTAGGGCTTG     |
|                           | IAA19-forward-R | tggATTCTTCAACACCTCGCCGA                       |
|                           | Intron-F        | gcgagggttgtgaagaatCCAATTGTAAGGAAATAATTATTTCT  |
|                           | Intron-R        | cggcgagggttgtgaagaatATCGATTTCGAACCCAGCTTC     |
|                           | IAA19-anti-F    | tATTCTTCAACACCTCGCCGA                         |
|                           | IAA19-anti-R    | cgatcggggaaattcgagtcGCCAAAGAAAGGTTAGGGCTTG    |
| Subcellular localization  | IAA19GFP-F      | agctcggttacccggggatccATGGCAAAGAAAGGTTAGGG     |
|                           | IAA19GFP-R      | ccttgctcaccatgtgtcgacTGGCTCCTCTCCATTGTT       |
| GUS activity assays       | 1391-proIAA19-F | tggctgcaggcgcacggatccGTTAAGTTTTGCTGTTAATTAAA  |
|                           | 1391-proIAA19-R | A<br>tcttagaattcccgggatccTTGGGTTTGAGGGTTTGAGA |
| Relative expression level | IAA19 -F        | CAGATCTGCTCTGGCGTTG                           |
|                           | IAA19 -R        | TTGTGCTGCAGTCCAAATCC                          |
|                           | 18S-F           | TGACCGAATGAGCAAGGAAATTACT                     |
|                           | 18S-R           | TACTCAGCTTGGCAATCCACATC                       |
|                           | SAUR-12-F       | ATGCTCGAGCTGGGAAAGA                           |
|                           | SAUR-12-R       | CAAATT CCTCTTCGGCTTGG                         |
|                           | ARP1-F          | AGAGTTGGCTGTGGCTTGT                           |
|                           | ARP1-R          | TTCCGCTCGTGCTAAAGACA                          |
|                           | LBD14-F         | GCTCTCGATTCCCTGCTGT                           |
|                           | LBD14-R         | CCAACAAAGTAGGCTCCGGT                          |
|                           | SF21-1-F        | TAATGACAGCAACCGATCCA                          |
|                           | SF21-1-R        | CCCATGTTGGCAGAGTTT                            |
|                           | PAP17-F         | CCCCACCAACAAAGATGGAT                          |
|                           | PAP17-R         | GTCATGCTCGCTGGTGAGTC                          |
|                           | ERF1B-F         | GGGCACCAAGAAATCACAT                           |
|                           | ERF1B-R         | GCCTAGCCACACCCTTATGC                          |
|                           | bHLH18-F        | AAGGCCAGTCAGGGAACAAA                          |
|                           | bHLH18-R        | TCACAAACACGACCGATTCC                          |
|                           | bHLH10-F        | CCGAGGTTGATATCCGCATT                          |
|                           | bHLH10-R        | ACTGCCGGTAGGTGGAACGT                          |
|                           | MYB4-F          | GCAAGAGCTAGACCCCGTTG                          |
|                           | MYB4-R          | CATCAGAATTCCCGGCTGAT                          |
|                           | TCP9-F          | ATAGCCACAGGCACCATTCC                          |
|                           | TCP9-R          | CGACGCAACTCCACTACGAC                          |
|                           | EBF1-F          | GTGCCCGTTGGTATCTGACA                          |
|                           | EFB1-R          | TCCCGATCACTGTGGTTGAC                          |
|                           | CYP90C1-F       | GGCTACACCTCTCGACCTGTCAG                       |
|                           | CYP90C1-R       | CCACCTGTTCACCTCAGCATCC                        |

|            |                          |
|------------|--------------------------|
| SAUR-51b-F | AGCAGCAACACTACGACGAACAG  |
| SAUR-51b-R | CGGGTCAAGGAAGGAGATCGGTAC |
| SAUR-51a-F | CAGTTCCAATGCCTCCGCCAAG   |
| SAUR-51a-R | GACTTCTTCGCAAGGGATGGTGAG |
| SAUR-14b-F | GTGAGAAGCAGCGGTTGTTGTTTC |
| SAUR-14b-R | CGCCCATTGGGTGATCATATCCG  |
| SAUR-14a-F | AGAACGAGCGGTTGTTCC       |
| SAUR-14a-R | TTCCTCCTCAGCGTCACTCAGC   |
| BKI1-F     | CTCCGACGAATAGTGGGCATCTG  |
| BKI1-R     | GGGCTTCTCTGTGGCAATGG     |

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