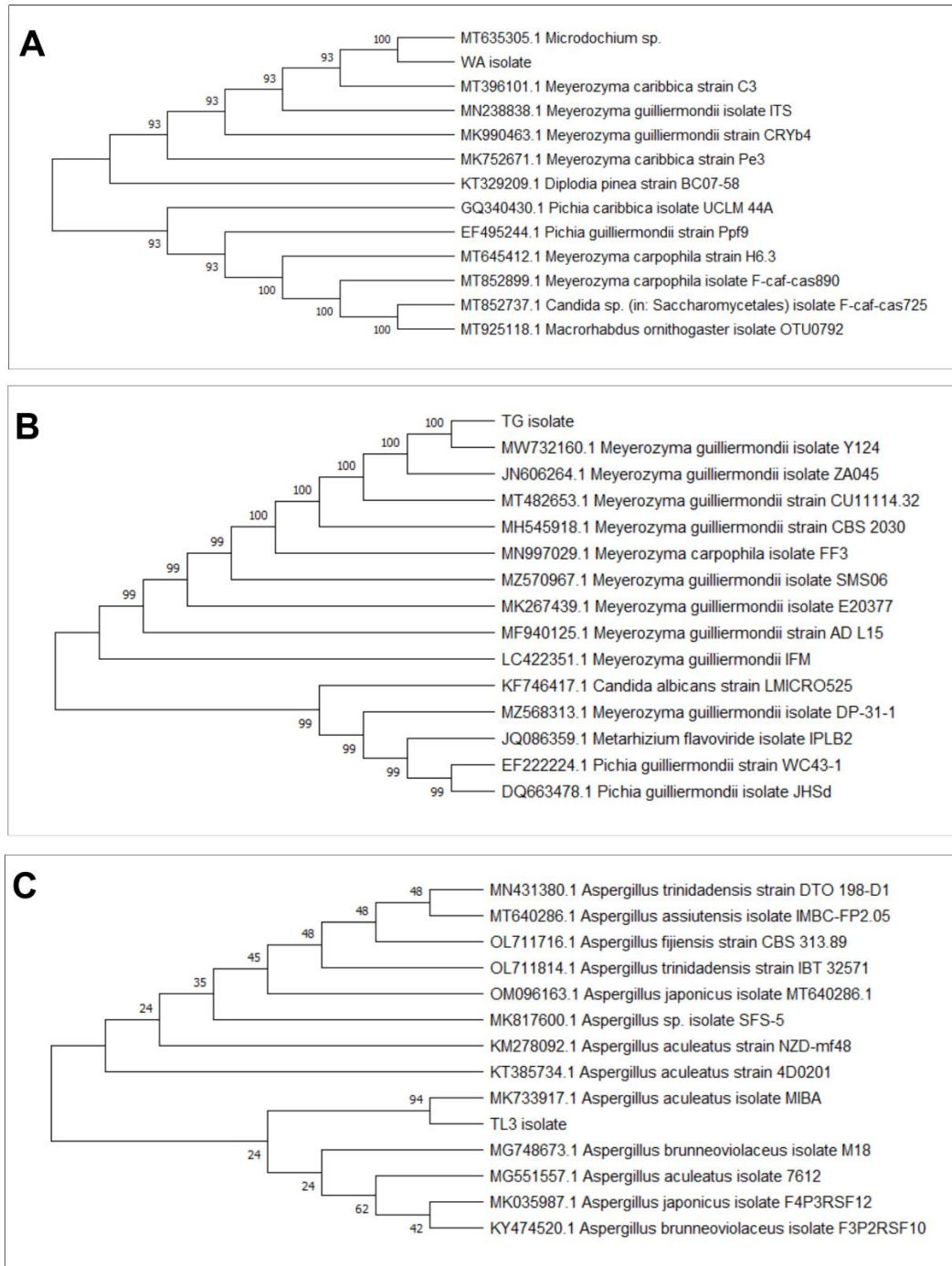


Supplementary Figure legends



Supplementary Figure S1. Molecular identification of fungal endophytes (A) WA, (B) TG, and (C) TL3M9, showing phylogenetic trees constructed with bootstrap replications of 1 K.

Supplementary Table legends

Supplementary table S1. Experimental setup with treatments.

Treatment (-PEG)	Treatment (+PEG)
Control (+ irrigation water)	Control (+8% PEG)
Plants treated with WA	Plants treated with WA + 8 % PEG
Plants treated with TG	Plants treated with TG + 8 % PEG
Plants treated with TL3	Plants treated with TL3 + 8 % PEG
Plants treated with WA + TG + TL3	Plants treated with WA + TG + TL3 + 8 % PEG

Supplementary table S2. List of primers used for qRT-PCR

GENE	FORWARD PRIMER	REVERSE PRIMER
<i>HSF1</i>	<i>CCCAGGAGCCAATAAGAGCC</i>	<i>GGACCCCAAAGAGCTTCACA</i>
<i>HSF3</i>	<i>ACTGGAACATGCCCACGAAA</i>	<i>GCAATGGCGAAGATGCCAAA</i>
<i>HSF12</i>	<i>ACCCTCCATCTCTGCTCCTT</i>	<i>AATGCACCAGACCCTGTCTC</i>
<i>HSF19</i>	<i>AAGTAGGAGTGGGGAGGGAG</i>	<i>GCAAGTGCTTCCAGCTCTGA</i>
<i>HSF21</i>	<i>AGTCAACAACCCTGGCACTT</i>	<i>GGATGTGCCACTGACAGGAA</i>
<i>APX</i>	<i>TCGAGCCGATCAAGGAGCAG</i>	<i>GCAAAGAAAGCATCCTCATC</i>
<i>ACTIN</i>	<i>TGGAAAGTGTCAAAGTGGGG</i>	<i>CGATAATAACAACAGTAATGGCA</i>

Supplementary table S3. Endophytic Fungal Strains Isolated from *Carthamus oxyacantha* L.

Host plant	Portion of plant	Segments per plate	No. of emerged Endophytic fungi
<i>Carthamus oxyacantha</i>	Leaf	12	05
	Stem	12	05
	Root	12	05

Supplementary table S4. Showing eigenvalues and percentage of variance with cumulative percentages.

No.	Eigenvalue	Percentage of Variance	Cumulative
1	14.15284	78.63%	78.63%
2	2.14642	11.92%	90.55%
3	0.43676	2.43%	92.98%
4	0.34949	1.94%	94.92%
5	0.24709	1.37%	96.29%
6	0.20957	1.16%	97.46%
7	0.16178	0.90%	98.36%
8	0.09097	0.51%	98.86%
9	0.0606	0.34%	99.20%
10	0.029	0.16%	99.36%
11	0.02881	0.16%	99.52%
12	0.02464	0.14%	99.66%
13	0.02035	0.11%	99.77%
14	0.01659	0.09%	99.86%
15	0.01145	0.06%	99.92%
16	0.00634	0.04%	99.96%
17	0.00457	0.03%	99.98%
18	0.00275	0.02%	100.00%

upplementary table S5. Showing eigenvector magnitudes in terms of coefficients of PC1 and PC2

Traits	Coefficients of PC1	Coefficients of PC2
Chlorophyll b	0.25578	-0.09218
Chlorophyll a	0.25242	-0.09097
Caretonoids	0.25023	-0.00819
Proteins	0.2389	-0.14945
Phenols	0.20224	0.41054
Sugars	0.25548	-0.07415
Flavonoids	0.212	0.28587
Lipids	0.2549	-0.02115
Proline	0.21609	0.37881
IAA	0.25129	-0.07506
GA	0.20147	-0.3876
ABA	-0.20738	0.35533
SA	0.22886	0.31314
AA	0.22343	0.32322
Peroxidase	0.2614	-0.00574
Anti-oxidant	0.20799	-0.24583
Catalase	0.25525	-0.02533
H ₂ O ₂	-0.25023	0.12391

Supplementary Table S6. Sowing PCA score data of various treatments for PC1 and PC2

Score data		
Treatments	PC 1 (78.63%)	PC 2 (11.92%)
Control	-4.01419	-2.33367
Control	-3.86228	-2.10401
Control	-3.82553	-1.88563
WA	-0.56671	-1.52915
WA	-0.30993	-1.67931
WA	-0.09062	-1.97748
TG	0.82015	-1.29004
TG	0.90813	-0.99156
TG	0.94571	-1.19099
TL3	1.80414	-0.7338
TL3	2.32343	-1.11938
TL3	2.11261	-0.88526
WA+TG+TL3	6.22263	-0.66914
WA+TG+TL3	6.92333	-0.81971
WA+TG+TL3	6.42563	-0.49739
PEG	-6.56831	0.79545
PEG	-6.66751	0.95387
PEG	-6.98563	0.54012
WA+PEG	-2.30702	0.60417
WA+PEG	-2.01571	0.66049
WA+PEG	-2.18186	0.49631
TG+PEG	-1.35946	1.24074
TG+PEG	-1.07229	1.62258
TG+PEG	-0.84232	1.83586
TL3+PEG	-0.23479	2.1071
TL3+PEG	0.33005	2.46374
TL3+PEG	-0.03186	2.24214
WA+TG+TL3+PEG	4.64728	1.29525
WA+TG+TL3+PEG	4.80574	1.57268
WA+TG+TL3+PEG	4.66718	1.27602