

	1	
<i>P. inflatum</i> MH857776	(1)	-----ATGGCTCAGTGAGGCTTTCGGACTC[C]CCAGAGAGGTTGGCAACGACCACTCAGGGCCGGAAG
<i>P. inflatum</i> TAMU1	(1)	CGCTACTACCGATTGAATGGCTCAGTGAGGCTTTCGGACTGGCCAGAGAGGTTGGCAACGACCACTCAGGGCCGGAAG
<i>P. inflatum</i> TAMU2	(1)	CGCTACTACCGATTGAATGGCTCAGTGAGGCTTTCGGACTGGCCAGAGAGGTTGGCAACGACCACTCAGGGCCGGAAG
BC01 TAMU	(1)	CGCTACTACCGATTGAATGGCTCAGTGAGGCTTTCGGACTGGCCAGAGAGGTTGGCAACGACCACTCAGGGCCGGAAG
BC02 TAMU	(1)	CGCTACTACCGATTGAATGGCTCAGTGAGGCTTTCGGACTGGCCAGAGAGGTTGGCAACGACCACTCAGGGCCGGAAG
BC03 TAMU	(1)	CGCTACTACCGATTGAATGGCTCAGTGAGGCTTTCGGACTGGCCAGAGAGGTTGGCAACGACCACTCAGGGCCGGAAG
<i>C. sulfuria</i> AB278194	(1)	CGCTACTACCGATTGAATGGCTCAGTGAGGCTTTCGGACTGGCCAGAGAGGTTGGCAACGACCACTCAGGGCCGGAAG
	81	160
<i>P. inflatum</i> MH857776	(65)	TTATCCAAACTC[C]GTCATTTAGAGGAAGTAAAAGTCGTAACAAGGTTCTC[A]GTTGGTGAACGAGCGGAGGGATCATTACAG
<i>P. inflatum</i> TAMU1	(81)	TTATCCAAACTCGGTCATTTAGAGGAAGTAAAAGTCGTAACAAGGTTCTCCGTTGGTGAACGAGCGGAGGGATCATTACAG
<i>P. inflatum</i> TAMU2	(81)	TTATCCAAACTCGGTCATTTAGAGGAAGTAAAAGTCGTAACAAGGTTCTCCGTTGGTGAACGAGCGGAGGGATCATTACAG
BC01 TAMU	(81)	TTATCCAAACTCGGTCATTTAGAGGAAGTAAAAGTCGTAACAAGGTTCTCCGTTGGTGAACGAGCGGAGGGATCATTACAG
BC02 TAMU	(81)	TTATCCAAACTCGGTCATTTAGAGGAAGTAAAAGTCGTAACAAGGTTCTCCGTTGGTGAACGAGCGGAGGGATCATTACAG
BC03 TAMU	(81)	TTATCCAAACTCGGTCATTTAGAGGAAGTAAAAGTCGTAACAAGGTTCTCCGTTGGTGAACGAGCGGAGGGATCATTACAG
<i>C. sulfuria</i> AB278194	(81)	TTATCCAAACTCGGTCATTTAGAGGAAGTAAAAGTCGTAACAAGGTTCTCCGTTGGTGAACGAGCGGAGGGATCATTACAG
	161	240
<i>P. inflatum</i> MH857776	(145)	AGTTTAAAGACTCCCAAACCACTGTGAA-CATACCCGTACCGTTGCCTCGGCGGGCGGCC[C]GGGCGGGGCCGAGCCT
<i>P. inflatum</i> TAMU1	(161)	AGTTTAAAGACTCCCAAACCACTGTGAA-CATACCCGTACCGTTGCCTCGGCGGGCGGCC[C]GGGCGGGGCCGAGCCT
<i>P. inflatum</i> TAMU2	(161)	AGTTTAAAGACTCCCAAACCACTGTGAA-CATACCCGTACCGTTGCCTCGGCGGGCGGCC[C]GGGCGGGGCCGAGCCT
BC01 TAMU	(161)	AGTTTAAAGACTCCCAAACCACTGTGAA-CATACCCGTACCGTTGCCTCGGCGGGCGGCC[C]GGGCGGGGCCGAGCCT
BC02 TAMU	(161)	AGTTTAAAGACTCCCAAACCACTGTGAA-CATACCCGTACCGTTGCCTCGGCGGGCGGCC[C]GGGCGGGGCCGAGCCT
BC03 TAMU	(161)	AGTTTAAAGACTCCCAAACCACTGTGAA-CATACCCGTACCGTTGCCTCGGCGGGCGGCC[C]GGGCGGGGCCGAGCCT
<i>C. sulfuria</i> AB278194	(161)	AGTTTAAAGACTCCCAAACCACTGTGAA[A]CATACCCGTACCGTTGCCTCGG[C]GGGCGGGGCC[A]GGGCGGGGCCGAGCCT
	241	320
<i>P. inflatum</i> MH857776	(224)	CCCCAGCGGAGGCGCCCGCCGAGGTCGCAAACTATAACTATATTTAGTGGCATCTCTGAGTAAC[TCCAAACAATCAA
<i>P. inflatum</i> TAMU1	(239)	CCCCAGCGGAGGCGCCCGCCGAGGTCGCAAACTATAACTATATTTAGTGGCATCTCTGAGTAAC[TCCAAACAATCAA
<i>P. inflatum</i> TAMU2	(239)	CCCCAGCGGAGGCGCCCGCCGAGGTCGCAAACTATAACTATATTTAGTGGCATCTCTGAGTAAC[TCCAAACAATCAA
BC01 TAMU	(239)	CCCCAGCGGAGGCGCCCGCCGAGGTCGCAAACTATAACTATATTTAGTGGCATCTCTGAGTAAC[TCCAAACAATCAA
BC02 TAMU	(239)	CCCCAGCGGAGGCGCCCGCCGAGGTCGCAAACTATAACTATATTTAGTGGCATCTCTGAGTAAC[TCCAAACAATCAA
BC03 TAMU	(239)	CCCCAGCGGAGGCGCCCGCCGAGGTCGCAAACTATAACTATATTTAGTGGCATCTCTGAGTAAC[TCCAAACAATCAA
<i>C. sulfuria</i> AB278194	(241)	CC[C]-AGCGGAGGCGCCCGCCGAGGTC[A]CAAACTATA[C]CATAT[C]TAGTGGCATCTCTGAGTAAC[TCCAAACAATCAA
	321	400
<i>P. inflatum</i> MH857776	(304)	AACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGAGCGAAATGCGATAAGTAATGTGAATTGCAGAAT
<i>P. inflatum</i> TAMU1	(319)	AACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGAGCGAAATGCGATAAGTAATGTGAATTGCAGAAT
<i>P. inflatum</i> TAMU2	(319)	AACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGAGCGAAATGCGATAAGTAATGTGAATTGCAGAAT
BC01 TAMU	(319)	AACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGAGCGAAATGCGATAAGTAATGTGAATTGCAGAAT
BC02 TAMU	(319)	AACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGAGCGAAATGCGATAAGTAATGTGAATTGCAGAAT
BC03 TAMU	(319)	AACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGAGCGAAATGCGATAAGTAATGTGAATTGCAGAAT
<i>C. sulfuria</i> AB278194	(320)	AACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGAGCGAAATGCGATAAGTAATGTGAATTGCAGAAT
	401	480
<i>P. inflatum</i> MH857776	(384)	TCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGCATCTCTGGCGGCATGCGTGTCCGAGCGTCATTTCAA
<i>P. inflatum</i> TAMU1	(399)	TCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGCATCTCTGGCGGCATGCGTGTCCGAGCGTCATTTCAA
<i>P. inflatum</i> TAMU2	(399)	TCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGCATCTCTGGCGGCATGCGTGTCCGAGCGTCATTTCAA
BC01 TAMU	(399)	TCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGCATCTCTGGCGGCATGCGTGTCCGAGCGTCATTTCAA
BC02 TAMU	(399)	TCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGCATCTCTGGCGGCATGCGTGTCCGAGCGTCATTTCAA
BC03 TAMU	(399)	TCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGCATCTCTGGCGGCATGCGTGTCCGAGCGTCATTTCAA
<i>C. sulfuria</i> AB278194	(400)	TCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGCATCTCTGGCGGCATGCGTGTCCGAGCGTCATTTCAA
	481	560
<i>P. inflatum</i> MH857776	(464)	CCCTCAAGCCCTGCTTGGTGTGGGGCACTACGCGCGAGCGT--AGGCCCTCAAATCAGTGGCGGACCCGCTGGAGGTC
<i>P. inflatum</i> TAMU1	(479)	CCCTCAAGCCCTGCTTGGTGTGGGGCACTACGCGCGAGCGT--AGGCCCTCAAATCAGTGGCGGACCCGCTGGAGGTC
<i>P. inflatum</i> TAMU2	(479)	CCCTCAAGCCCTGCTTGGTGTGGGGCACTACGCGCGAGCGT--AGGCCCTCAAATCAGTGGCGGACCCGCTGGAGGTC
BC01 TAMU	(479)	CCCTCAAGCCCTGCTTGGTGTGGGGCACTACGCGCGAGCGT--AGGCCCTCAAATCAGTGGCGGACCCGCTGGAGGTC
BC02 TAMU	(479)	CCCTCAAGCCCTGCTTGGTGTGGGGCACTACGCGCGAGCGT--AGGCCCTCAAATCAGTGGCGGACCCGCTGGAGGTC
BC03 TAMU	(479)	CCCTCAAGCCCTGCTTGGTGTGGGGCACTACGCGCGAGCGT--AGGCCCTCAAATCAGTGGCGGACCCGCTGGAGGTC
<i>C. sulfuria</i> AB278194	(480)	CCCTCAAGCCCTGCTTGGTGTGGGGCACTACGCG[A]AGCGT[G]TAGGCCCTTAAATCAGTGGCGGAC[T]CGCTGGAGGTC
	561	640
<i>P. inflatum</i> MH857776	(542)	CGGGCGTAGTAACACATCTCGCCCGAGGTC[C]CCAGCGTGCCCTGCCGTTAAACCCCCAAATTTACAGAAGGT-GACCTC
<i>P. inflatum</i> TAMU1	(557)	CGGGCGTAGTAACACATCTCGCCCGAGGTC[C]CCAGCGTGCCCTGCCGTTAAACCCCCAAATTTACAGAAGGTTGACCTC
<i>P. inflatum</i> TAMU2	(557)	CGGGCGTAGTAACACATCTCGCCCGAGGTC[C]CCAGCGTGCCCTGCCGTTAAACCCCCAAATTTACAGAAGGTTGACCTC
BC01 TAMU	(557)	CGGGCGTAGTAACACATCTCGCCCGAGGTC[C]CCAGCGTGCCCTGCCGTTAAACCCCCAAATTTACAGAAGGTTGACCTC
BC02 TAMU	(557)	CGGGCGTAGTAACACATCTCGCCCGAGGTC[C]CCAGCGTGCCCTGCCGTTAAACCCCCAAATTTACAGAAGGTTGACCTC
BC03 TAMU	(557)	CGGGCGTAGTAACACATCTCGCCCGAGGTC[C]CCAGCGTGCCCTGCCGTTAAACCCCCAAATTTACAGAAGGTTGACCTC
<i>C. sulfuria</i> AB278194	(560)	CGGGCGTAGTA[A]ACATCTCGCCCGAGGTC[C]CCAGCGTGCCCTGCCGTTAAACCCCCAA[A]TTACAGAAGGTTGACCTC
	641	690
<i>P. inflatum</i> MH857776	(620)	GGAT-----
<i>P. inflatum</i> TAMU1	(637)	GGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATCAATAAGCGGAGGA
<i>P. inflatum</i> TAMU2	(637)	GGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATCAATAAGCGGAGGA
BC01 TAMU	(637)	GGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATCAATAAGCGGAGGA
BC02 TAMU	(637)	GGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATCAATAAGCGGAGGA
BC03 TAMU	(637)	GGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATCAATAAGCGGAGGA
<i>C. sulfuria</i> AB278194	(640)	GGATCAGGTAGGAATACCCGCTGAACCTTAAGCATATCAATAAGCGGAGGA

Figure S1a. Alignment of reference sequences of ITS1, 5.8S, and ITS2 regions of ribosomal RNA of *Phialemonium inflatum* (MH857776) were used as reference to generate evolutionary relationships between stock strain TAMU and fungal cultures recovered from cotton squares obtained from plants inoculated with TAMU isolates. *Cephalotheca sulfurea* ITS sequence (AB278194) was used as the outgroup. Nucleotide polymorphisms, insertions, and deletions in the nucleotide sequences are shown in white text with black background.

[illegible]

[illegible]

		641	696
<i>B. bassiana</i> AB576868	(641)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
<i>B. bassiana</i> MG548313	(595)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
<i>B. bassiana</i> LC768985	(641)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGG-	
<i>B. bassiana</i> GHA	(641)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
BC10 GHA	(641)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
BC11 GHA	(641)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
BC12 GHA	(641)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
<i>B. bassiana</i> NI8	(640)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
BC04 NI8	(640)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
BC05 NI8	(640)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
BC06 NI8	(640)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
<i>B. bassiana</i> JG1	(641)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
BC07 JG1	(641)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
BC08 JG1	(641)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
BC09 JG1	(641)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
<i>B. bassiana</i> SPE	(640)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
BC17 SPE	(640)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	
BC18 SPE	(640)	GACCTCGAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	

Figure S1b. Alignment of reference sequences of ITS1, 5.8S, and ITS2 regions of ribosomal RNA of *Beauveria bassiana* (AB576868, MG548313, and LC768985) with ITS sequences generated from *B. bassiana* stock strains GHA, NI8, JG1, SPE and fungal cultures recovered from cotton squares tissue from plants inoculated with stock fungal isolates. Nucleotide polymorphisms, insertions, and deletions in the nucleotide sequences are shown in white text with black background.

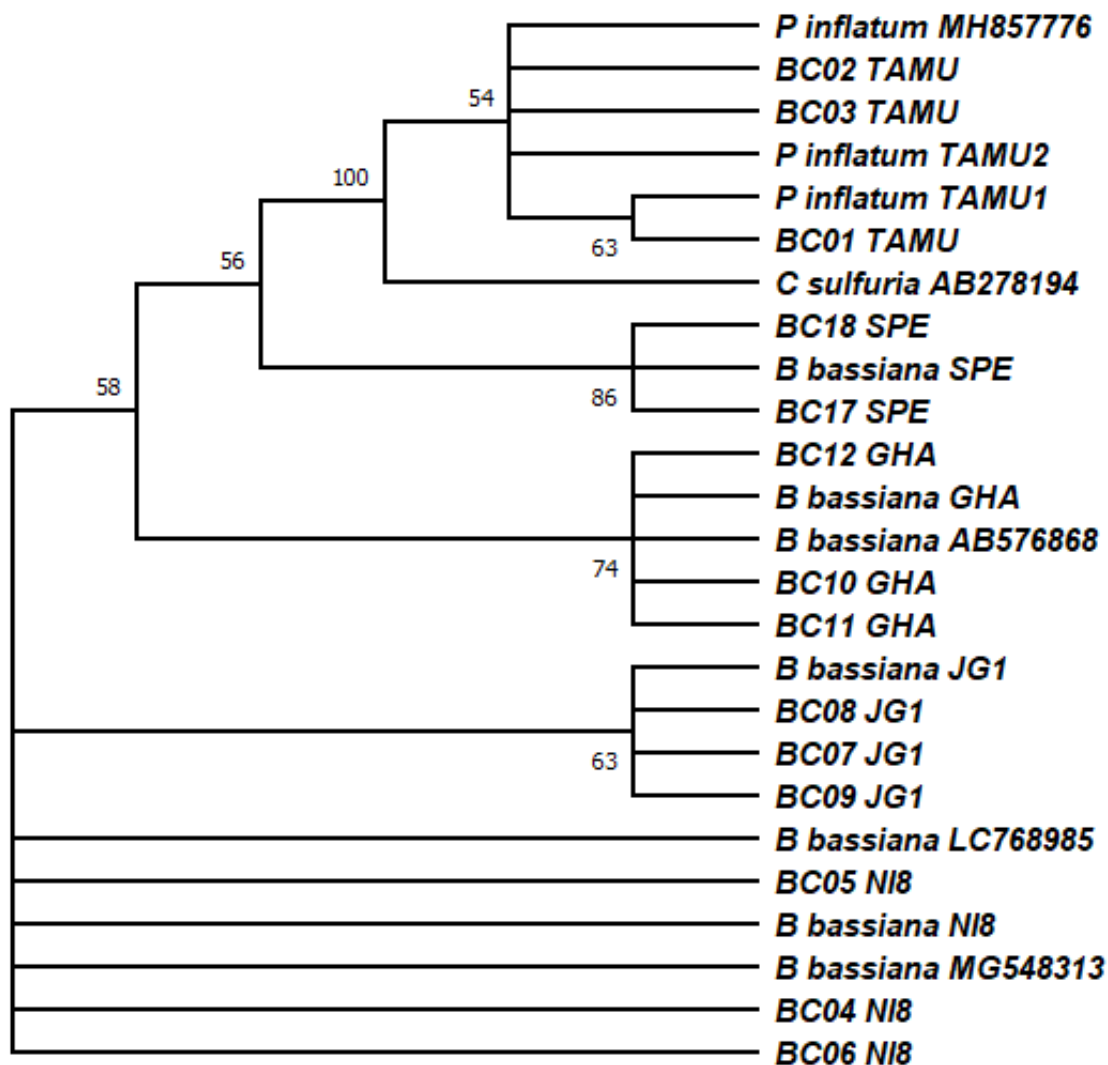


Figure S2. The evolutionary history was inferred among internal transcribed spacer 1 (ITS1), 5.8S and ITS2 regions using Maximum Likelihood based on the Kimura 2-parameter model of sequence evolution [59]. The database sequences of ITS regions of *Beauveria bassiana* (AB576868, MG548313, and LC768985) and *Phialemonium inflatum* (MH857776) were used as reference to generate evolutionary relationships between stock strains GHA, NI8, JG1, SPE, and TAMU and fungal cultures recovered from cotton squares obtained from plants inoculated with stock fungal isolates. *Cephalotheca sulfurea* ITS sequence (AB278194) was used as the outgroup. GenBank accessions and strain names are provided at branch tips. Tree was based on approximately a 696 nucleotide-long consensus alignment. The bootstrap consensus at each node was inferred from 10,000 replicates [60] and partitions with less than 50% bootstrap support are collapsed. Neighbor-Join and BioNJ algorithms were applied to a matrix of pairwise distances estimated using the Maximum Composite Likelihood (MCL) approach and the topology with superior log likelihood value was selected to obtain the initial tree(s). A discrete Gamma distribution was used to model evolutionary rate differences among sites (5 categories (+G, parameter = 0.3573)). Evolutionary analyses were conducted in MEGA11 [56].