

Table S1. List of *Glycine max* and *S. guaranitica* genes and primer pairs used for full-length terpene synthases cDNAs clones.

Gene name	Short primer sequence	Long primer sequence
<i>GmFDPS</i>	5'- ATGGCAGATCTCAAGTCTACATTC-3'	5'- GGGGACAAGTTTGTACAAAAAAGCAGGCTTA TGGCAGATCTCAAGTCT-3'
	5'- CCTTAAGTTGACTCTACTTCTGCCT-3'	5'- GGGGACCACTTTGTACAAGAAAGCTGGGTTTG ACTCTACTTCTGCCT-3'
<i>GmGGPP</i>	5'- GCACCAAACATGAGTTCTCTGAATC-3'	5'- GGGGACAAGTTTGTACAAAAAAGCAGGCTTG CACCAAACATGAGTTCT-3'
	5'- GTGAGAAAACAGGGTATCCAATGTT-3'	5'- GGGGACCACTTTGTACAAGAAAGCTGGGTCA GGGTATCCAATGTT-3'
<i>SgLINS</i>	5'- ATGCTGATGAAAACAGAGCAAGATTC-3'	5'- GGGGACAAGTTTGTACAAAAAAGCAGGCTTC ATGCTGATGAAAACAGAG-3'
	5'- TTAAATGAATTTCAGGCATTTTCGAG-3'	5'- GGGGACCACTTTGTACAAGAAAGCTGGGTTTA AATGAATTTCAAGGC-3'
<i>SgGPS</i>	5'- ATGATGTCGGTTAGAGGGCTCG-3'	5'- GGGGACAAGTTTGTACAAAAAAGCAGGCTTC ATGATGTCGGTTAGAGGG-3'
	5'- CTACTTTGTTCTGGTGATGACTATATGCG-3'	5'- GGGGACCACTTTGTACAAGAAAGCTGGGTCTA CTTTGTTCTGGTGAT-3'
<i>SgFPPS</i>	5'- ATGGCGAATCTCAACGGATC-3'	5'- GGGGACAAGTTTGTACAAAAAAGCAGGCTTC ATGGCGAATCTCAACG-3'
	5'- TTATTTCTGTCTCTTGTATATCTTTCCC-3'	5'- GGGGACCACTTTGTACAAGAAAGCTGGGTTTA TTTCTGTCTCTTG-3'

Table S2. List of *Glycine max* and *S. guaranitica* genes and primer pairs used for qRT-PCR.

Gene	Primer name	Primer sequence	PCR product (bp)
<i>GmFDPS</i>	GmFDPS-F	5'- TGAATGGCTTCAGGCATATT-3'	151
	GmFDPS-R	5'- GATCCGTGGAATATGGTTTCT-3'	
<i>GmGGPP</i>	GmGGPP-F	5'- AACAAACGCTTCCCAAAC-3'	146
	GmGGPP-R	5'- CGATCATGTAGCCCTTGAAA-3'	
<i>SgGPS</i>	SgGPS-F	5'- GCTTGAGGTCTATGGTAGTTG -3'	155
	SgGPS -R	5'- CTCGGATGTTTGCCTCTG -3'	
<i>SgFPPS</i>	SgFPPS-F	5'- CACACAAGACGTGGTCAG -3'	159
	SgFPPS-R	5'- CCAACAGATCGACATAGTAAGG -3'	
<i>SgLINS</i>	SgLINS -1-F	5'- GGTGAAGGCTGAGGAATATC -3'	156
	SgLINS -1-R	5'- AGTTTGGCGACGGAATG -3'	
<i>GmACTIN</i>	GmACTIN-F	5'- CTTCCCTCAGCACCTTCCAA-3'	158
	GmACTIN-R	5'- GGTCCAGCTTTCACACTCCAT-3'	

Table S3. List of *Glycine max* genes involved in nodules biosynthesis and signaling pathway and primer pairs used for qRT-PCR.

Gene name	Primer name	Primer sequence	PCR product (bp)
<i>GmMAX1a</i>	<i>GmMAX1a-F</i>	5'- CCTCTCTAGTCCCCATTCAAGTTT-3'	150
	<i>GmMAX1a-R</i>	5'- TGTGTTGGTTGATGAAATCTGATAC-3'	
<i>GmMAX1b</i>	<i>GmMAX1b-F</i>	5'- TACCGCAAATATTCTTCAGACC-3'	155
	<i>GmMAX1b-R</i>	5'- ACCAGATTCTATCCCTTTCACC-3'	
<i>GmMAX2</i>	<i>GmMAX2-F</i>	5'- TGTTTGCTCGCCAGGACTC-3'	160
	<i>GmMAX2-R</i>	5'- CACCATCACCCGGTTCATC-3'	
<i>GmMAX3</i>	<i>GmMAX3-F</i>	5'- CAGGCTACTCACCGTGTCTT-3'	152
	<i>GmMAX3-R</i>	5'- GGTATCCGTTACAGCCCAAT-3'	
<i>GmMAX4a</i>	<i>GmMAX4a-F</i>	5'- CTTTCACCACCTTGCCTTCA-3'	148
	<i>GmMAX4a-R</i>	5'- TGGTTTCTTCCGTTCCCTCC-3'	
<i>GmMAX4b</i>	<i>GmMAX4b-F</i>	5'- GAAATAAAGGCATCTACAAAGGGAA-3'	150
	<i>GmMAX4b-R</i>	5'- ATGGTGGTGGTGGTGGCAGT-3'	
<i>GmNINa</i>	<i>GmNINa-F</i>	5'- TAACATGCGATGCTGATCTTG-3'	150
	<i>GmNINa-R</i>	5'- TGATTTAGAGGCGAAGCTTGA-3'	
<i>GmNINb</i>	<i>GmNINb-F</i>	5'- CATGGAGTCGACGCAAATAA-3'	160
	<i>GmNINb-R</i>	5'- TCAAGTACCCAACAGCAATC-3'	
<i>GmNFR5</i>	<i>GmNFR5-F</i>	5'- TTCCCTTTCTCCTCTCCAC-3'	149
	<i>GmNFR5-R</i>	5'- GCATGAAAAGTTTGTCTATTGTC-3'	
<i>GmNSP1a</i>	<i>GmNSP1a-F</i>	5'- CAACACTTATCTTCTTCTCCAAC-3'	160
	<i>GmNSP1a-R</i>	5'- GGAAGCATTGCTATGTTGTTAGG-3'	
<i>GmNSP1b</i>	<i>GmNSP1b-F</i>	5'- ATCCTCGTCTTCTTCCAAATAC-3'	155
	<i>GmNSP1b-R</i>	5'- GGGAGAAGGAGTAGGAGTAAT-3'	
<i>GmNSP2a</i>	<i>GmNSP2a-F</i>	5'- GAACTTACCGCACCTTAGTT-3'	155
	<i>GmNSP2a-R</i>	5'- GATGCAGCGACTCCATAAA-3'	
<i>GmNSP2b</i>	<i>GmNSP2b-F</i>	5'- AATCATTGCCAAGCGAAGCT-3'	149
	<i>GmNSP2b-R</i>	5'- AGTCCAAAGCGAGGCAGAGA-3'	
<i>GmNSP2b</i>	<i>GmDMI2a-F</i>	5'- GTCCTCAGTGGCCTTGACATT-3'	160
	<i>GmDMI2a-R</i>	5'- ACACCCTTTTGCTGCTTTG-3'	
<i>GmDMI2b</i>	<i>GmDMI2b-F</i>	5'- ATTCACGAGCACACTGTGCCT-3'	158
	<i>GmDMI2b-R</i>	5'- CCAAAATCTGCAACCTTTCC-3'	
<i>GmDMI3α</i>	<i>GmDMI3α-F</i>	5'- AGTGTGTTGGAGCACCGCAATC-3'	147
	<i>GmDMI3α-R</i>	5'- TCAAACAAGTCAAATATACGTGGTG-3'	

<i>GmDMI3b</i>	<i>GmDMI3b-F</i>	5'- TTGTCCATAGGGAGGGTAAT-3'	159
	<i>GmDMI3b-R</i>	5'- ATGAGTAGAAGGGTAGCTAGAG-3'	
<i>GmACTIN</i>	<i>GmACTIN-F</i>	5'- CTTCCCTCAGCACCTTCCAA-3'	158
	<i>GmACTIN-R</i>	5'- GGTCCAGCTTTCACACTCCAT-3'	