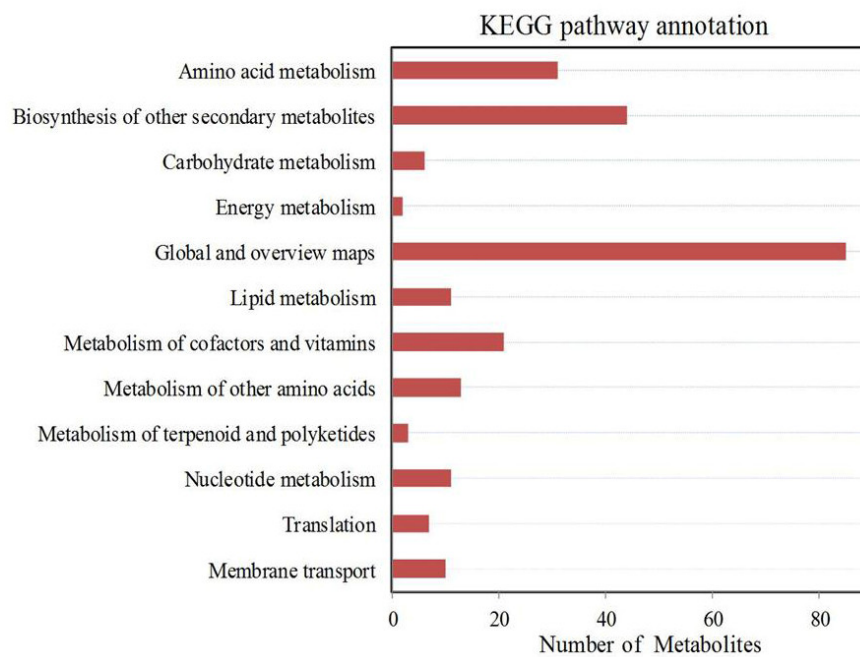
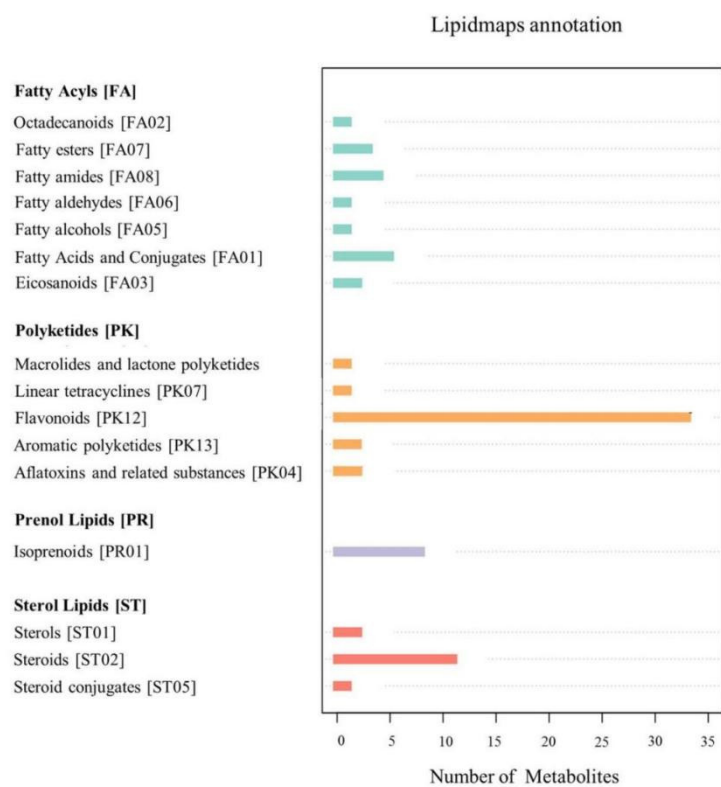


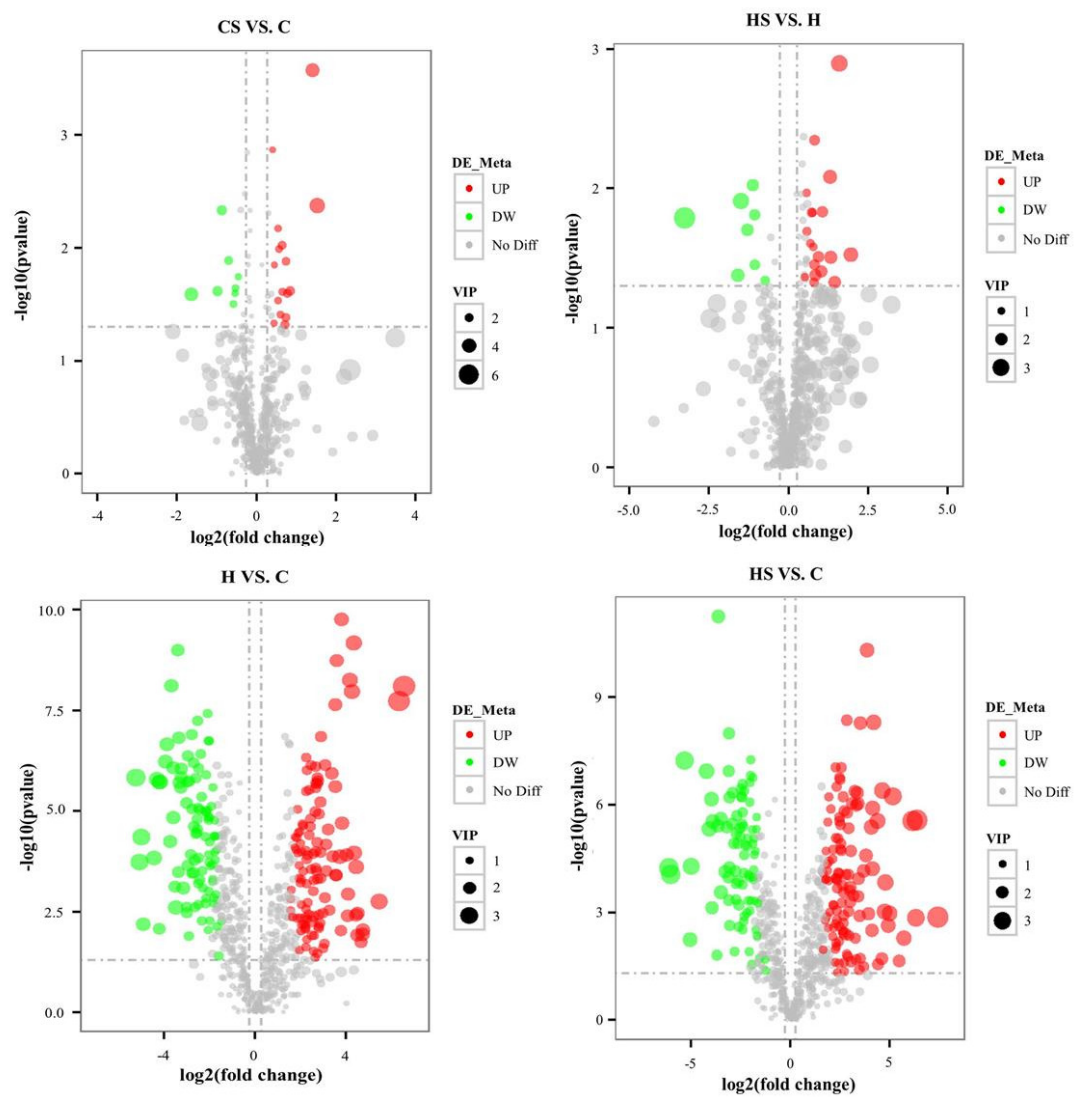
**Figure S1.** Heat map (A) and Venn diagram (B) of differentially accumulated metabolites (DAMs) in leaf of white clover in response to exogenous application of spermidine and heat stress. C, control; CS, control+spermidine; H, heat stress; HS, heat stress+spermidine.



**Figure S2.** Kyoto Encyclopedia of Genes and Genomes (KEGG) function annotation of all identified metabolites in leaf of white clover in response to exogenous application of spermidine and heat stress.



**Figure S3.** Lipid maps of all identified metabolites in leaf of white clover in response to exogenous application of spermidine and heat stress.



**Figure S4.** Volcano plot of identified differentially expressed metabolites in leaf of white clover in response to exogenous application of spermidine and heat stress. C, control; CS, control+spermidine; H, heat stress; HS, heat stress+spermidine.

**Table S1.** Primer sequences and their corresponding GeneBank accession numbers of genes involved in lipid metabolism.

Target Gene	Accession No.	Forward Primer (5'-3')	Reverse Primer (5'-3')	Tm/°C
<i>AtACT2</i>	NP_188508.1	AATTACCCGATGGGC A	TCATACTCGGCCTTGGA	58
<i>AtPI4K alpha</i>	NM_180629.2	ATCGTTCCGCCGTTTCCTTC	ATCCCCGTCGCTATCACCA	60
<i>AtPIP5K1</i>	AB005902.1	GAGTGATTGAGAAGAAGACGAAG	CTCTCTACTTCTTCACCGAAAC	58
<i>AtPLC5</i>	AF434167.2	CGCTGATGAAATGCTTGAAA	GCTGAATTCCTCATCCCAAA	58
<i>AtDGK2</i>	NM_001345610.1	AAGCAAGTCTCGGACATGCCT	TTCGTTTGTGCCCCGCCTAT	61
<i>AtPLD delta</i>	NP_567989.1	CCGGCGATTGGGTAGATA	AGCAATTCCCCAAGCGTCAT	58