Table S4. Major classes of KEGG metabolic pathways identified, with the number of enzymes and differentially expressed genes (DEGs) involved in each pathway. The Gene ID is the same as that deposited in the ENA. The color bar indicates the transition of the expression pattern in terms of Log_2FC from upregulation (red squares) to downregulation (blue squares).The dark blue pattern with stars corresponds to genes uniquely expressed in the leaves of the control plants. The pathways involving at least two DEGs are represented in bold and illustrated in Figure S6. The fold change (FC) was calculated as the ratio between the drought-stressed and control plants.

A- Roots

Classes	Pathways	Pathway ID	N° of enzymes	N° of genes	Gene ID	Log_2FC
Carbohydrate metabolism	**Starch and sucrose metabolism**	map00500	3	4	GF677_13579 GF677_18434 GF677_22052 GF677_18506	-2.64 2.08 0.68 0.76
	Inositol phosphate metabolism	map00562	4	3	GF677_21039 GF677_2691 GF677_19350	1.35 -2.14 -1.79
	Pyruvate metabolism	map00620	2	3	GF677_11293 GF677_14079 GF677_16384	-2.96 -2.91 0.60
	Amino sugar and nucleotide sugar metabolism	map00520	5	4	GF677_22052 GF677_8275 GF677_540 GF677_11964	0.68 -1.87 -2.62 -1.50
	Glyoxylate and dicarboxylate metabolism	map00630	1	3	GF677_605 GF677_606 GF677_8702	-2.25 -2.30 2.61
	Ascorbate and aldarate metabolism	map00053	1	1	GF677_19350	-1.79
	Glycolysis / Gluconeogenesis	map00010	1	1	GF677_19994	-3.78
	Fructose and mannose metabolism	map00051	2	1	GF677_8275	-1.87
	Galactose metabolism	map00052	1	1	GF677_17056	2.82
	Pentose and glucuronate interconversions	map00040	2	1	GF677_1972	-2.44
	Pentose phosphate pathway	map00030	1	1	GF677_19490	1.72
Lipid metabolism	**Steroid hormone biosynthesis**	map00140	2	4	GF677_14574 GF677_17486 GF677_721 GF677_5166	1.71 0.73 -1.06 -1.24
	Fatty acid degradation	map00071	3	3	GF677_19994 GF677_14574 GF677_17486	-3.78 1.71 0.73
	Fatty acid biosynthesis	map00061	1	2	GF677_20005 GF677_20004	-3.37 -3.05
	Glycerophospholipid metabolism	map00564	3	2	GF677_17948 GF677_17117	1.59 2.66
	Arachidonic acid metabolism	map00590	2	2	GF677_14574 GF677_17486	1.71 0.73
	Linoleic acid metabolism	map00591	1	2	GF677_14574 GF677_17486	1.71 0.73
	Biosynthesis of unsaturated fatty acids	map01040	1	2	GF677_20005 GF677_20004	-3.37 -3.05
	Glycerolipid metabolism	map00561	1	1	GF677_10190	0.74
	Ether lipid metabolism	map00565	1	1	GF677_17117	2.66
	Alpha-Linolenic acid metabolism	map00592	1	1	GF677_19994	-3.78
Metabolism of amino acid	**Cysteine and methionine metabolism**	map00270	7	5	GF677_13569 GF677_3733 GF677_4609 GF677_19306 GF677_16881	1.67 -1.76 -3.81 -3.92 0.91
	Phenylalanine metabolism	map00360	5	3	GF677_3733 GF677_4609 GF677_524	-1.76 -3.81 -4.22
	Tyrosine metabolism	map00350	5	3	GF677_19994 GF677_3733 GF677_4609	-3.78 -1.76 -3.81
	Arginine and proline metabolism	map00330	1	2	GF677_3733 GF677_4609	-1.76 -3.81
	Arginine biosynthesis	map00220	1	2	GF677_3733 GF677_4609	-1.76 -3.81
	Lysine biosynthesis	map00300	2	2	GF677_4609 GF677_3733	-3.81 -1.76
	Alanine, aspartate and glutamate metabolism	map00250	2	3	GF677_3733 GF677_4609 GF677_16881	-1.76 -3.81 0.91
	Histidine metabolism	map00340	1	2	GF677_3733 GF677_4609	-1.76 -3.81
	Cyanoamino acid metabolism	map00460	2	2	GF677_18434 GF677_22052	2.08 0.68
	Tryptophan metabolism	map00380	1	2	GF677_14574 GF677_17486	1.71 0.73
	Glycine, serine and threonine metabolism	map00260	3	3	GF677_19994 GF677_8805 GF677_16881	-3.78 1.56 0.91
	Phenylalanine, tyrosine and tryptophan biosynthesis	map00400	4	2	GF677_3733 GF677_4609	-1.76 -3.81
	Glutathione metabolism	map00480	1	1	GF677_14079	-2.91
	Selenocompound metabolism	map00450	2	1	GF677_13569	1.67

Table S4 (A) Roots (Continued).

Classes	Pathways	Pathway ID	N° of enzymes	N° of genes	Gene ID	Log_2FC
Xenobiotics biodegradation and metabolism	**Aminobenzoate degradation**	map00627	4	9	GF677_438	1.60
					GF677_15114	4.25
					GF677_16384	0.60
					GF677_14574	1.71
					GF677_17486	0.73
					GF677_19254	3.13
					GF677_14452	2.94
					GF677_2691	-2.14
					GF677_19391	1.85
	Drug metabolism - cytochrome P450	map00982	4	5	GF677_14079	-2.91
					GF677_19994	-3.78
					GF677_14574	1.71
					GF677_17486	0.73
					GF677_13110	-1.81
	Drug metabolism - other enzymes	map00983	1	2	GF677_10190	0.74
					GF677_1287	1.06
	Steroid degradation	map00984	1	2	GF677_721	-1.06
					GF677_5166	-1.24
	Metabolism of xenobiotics by cytochrome P450	map00980	3	4	GF677_14079	-2.91
					GF677_19994	-3.78
					GF677_14574	1.71
					GF677_17486	0.73
	Caprolactam degradation	map00930	1	1	GF677_14574	1.71
	Naphthalene degradation	map00626	1	1	GF677_19994	-3.78
	Chloroalkane and chloroalkene degradation	map00625	1	1	GF677_19994	-3.78
Biosynthesis of other secondary metabolites	**Phenylpropanoid biosynthesis**	map00940	3	9	GF677_18434	2.08
					GF677_22052	0.68
					GF677_2725	-6.15
					GF677_17639	-2.43
					GF677_18894	1.43
					GF677_16877	-1.79
					GF677_14803	-2.88
					GF677_15065	0.96
					GF677_524	-4.22
	Flavonoid biosynthesis	map00941	3	4	GF677_835	-2.28
					GF677_19946	-3.32
					GF677_721	-1.06
					GF677_524	-4.22
	Caffeine metabolism	map00232	1	2	GF677_14574	1.71
					GF677_17486	0.73
	Isoquinoline alkaloid biosynthesis	map00950	3	2	GF677_3733	-1.76
					GF677_4609	-3.81
	Tropane, piperidine and pyridine alkaloid biosynthesis	map00960	4	2	GF677_3733	-1.76
					GF677_4609	-3.81
	Stilbenoid, diarylheptanoid and gingerol biosynthesis	map00945	1	1	GF677_524	-4.22
	Isoflavonoid biosynthesis	map00943	1	1	GF677_12111	-3.74
Metabolism of cofactors and vitamins	**Thiamine metabolism**	map00730	1	5	GF677_2380	2.75
					GF677_12006	-0.56
					GF677_5054	1.41
					GF677_21543	1.22
					GF677_3912	0.88
	Ubiquinone and other terpenoid-quinone biosynthesis	map00130	2	3	GF677_3733	-1.76
					GF677_4609	-3.81
					GF677_524	-4.22
	Retinol metabolism	map00830	3	3	GF677_14574	1.71
					GF677_19994	-3.78
					GF677_17486	0.73
	Porphyrin and chlorophyll metabolism	map00860	1	1	GF677_19490	1.72
Nucleotide metabolism	**Purine metabolism**	map00230	2	5	GF677_2380	2.75
					GF677_12006	-0.56
					GF677_3912	0.88
					GF677_5054	1.41
					GF677_21543	1.22
Energy metabolism	**Carbon fixation in photosynthetic organisms**	map00710	2	5	GF677_605	-2.25
					GF677_606	-2.30
					GF677_8702	2.61
					GF677_4609	-3.81
					GF677_3733	-1.76
	Methane metabolism	map00680	1	1	GF677_8805	1.56
	Sulfur metabolism	map00920	1	1	GF677_13569	1.67
	Oxidative phosphorylation	map00190	1	1	GF677_13134	2.02
Environmental information processing, signal transduction	Phosphatidylinositol signaling system (Ph signal system)	map04070	2	2	GF677_2691	-2.14
					GF677_21039	1.35
Metabolism of terpenoids and polyketides	Carotenoid biosynthesis	map00906	1	1	GF677_18716	1.46
	Diterpenoid biosynthesis	map00904	1	1	GF677_835	-2.28
	Terpenoid backbone biosynthesis	map00900	2	1	GF677_14922	-1.16

Table S4 (B)

B- Leaves

Classes	Pathways	Pathway ID	N °of enzymes	N° of genes	Gene ID	Log_2FC
Carbohydrate metabolism	**Pyruvate metabolism**	map00620	1	4	cvCatherina.17367	-1.80e+308 **
					cvCatherina.1098	-1.80e+308 **
					cvCatherina.9155	1.69
					cvCatherina.11474	-1.80e+308 **
	Glyoxylate and dicarboxylate metabolism	map00630	1	2	cvCatherina.6446	-1.98
					cvCatherina.11416	-4.80
	Ascorbate and aldarate metabolism	map00053	1	2	cvCatherina.12438	1.36
					cvCatherina.13321	1.22
	Pentose and glucuronate interconversions	map00040	3	2	cvCatherina.676	1.12
					cvCatherina.370	-0.99
	Glycolysis / Gluconeogenesis	map00010	1	1	cvCatherina.15207	0.79
	Amino sugar and nucleotide sugar metabolism	map00520	1	1	cvCatherina.2749	1.78
	Citrate cycle (TCA cycle)	map00020	1	1	cvCatherina.6267	-0.37
Lipid metabolism	**Glycerophospholipid metabolism**	map00564	4	4	cvCatherina.11558	1.07
					cvCatherina.8096	3.54
					cvCatherina.7529	0.50
					cvCatherina.9162	-0.72
	Glycerolipid metabolism	map00561	2	2	cvCatherina.2749	1.78
					cvCatherina.7529	0.50
	Alpha-Linolenic acid metabolism	map00592	1	1	cvCatherina.9162	-0.72
	Arachidonic acid metabolism	map00590	1	1	cvCatherina.9162	-0.72
	Linoleic acid metabolism	map00591	1	1	cvCatherina.9162	-0.72
	Steroid hormone biosynthesis	map00140	1	1	cvCatherina.4172	0.61
	Ether lipid metabolism	map00565	1	1	cvCatherina.9162	-0.72
Metabolism of amino acid	**Glutathione metabolism**	map00480	4	10	cvCatherina.17367	-1.80e+308 **
					cvCatherina.1098	-1.80e+308 **
					cvCatherina.11474	-1.80e+308
					cvCatherina.6267	-0.37
					cvCatherina.12893	0.48
					cvCatherina.12438	1.36
					cvCatherina.13321	1.22
					cvCatherina.9155	1.69
					cvCatherina.266	-1.80e+308
					cvCatherina.13478	-1.80e+308
	Taurine and hypotaurine metabolism	map00430	1	1	cvCatherina.12893	0.48
	Tyrosine metabolism	map00350	1	1	cvCatherina.4172	0.61
	Alanine, aspartate and glutamate metabolism	map00250	1	1	cvCatherina.11963	-1.14
	Cyanoamino acid metabolism	map00460	1	1	cvCatherina.12893	0.48
	Glycine, serine and threonine metabolism	map00260	1	1	cvCatherina.6955	-1.66
	Phenylalanine, tyrosine and tryptophan biosynthesis	map00400	1	1	cvCatherina.6955	-1.66
Xenobiotics biodegradation and metabolism	**Aminobenzoate degradation**	map00627	2	10	cvCatherina.6471	0.74
					cvCatherina.4274	1.28
					cvCatherina.2459	1.55
					cvCatherina.374	1.68
					cvCatherina.15676	0.68
					cvCatherina.6526	2.61
					cvCatherina.8503	0.32
					cvCatherina.11767	4.59
					cvCatherina.7049	1.54
					cvCatherina.7411	0.97
	Drug metabolism - cytochrome P450	map00982	1	6	cvCatherina.17367	-1.80e+308 **
					cvCatherina.1098	-1.80e+308 **
					cvCatherina.9155	1.69
					cvCatherina.11474	-1.80e+308 **
					cvCatherina.266	-1.80e+308 **
					cvCatherina.13478	-1.80e+308 **
	Drug metabolism - other enzymes	map00983	1	3	cvCatherina.16793	-1.05
					cvCatherina.17541	-1.46
					cvCatherina.9162	-0.72
	Metabolism of xenobiotics by cytochrome P450	map00980	1	6	cvCatherina.17367	-1.80e+308 **
					cvCatherina.1098	-1.80e+308 **
					cvCatherina.9155	1.69
					cvCatherina.11474	-1.80e+308 **
					cvCatherina.266	-1.80e+308 **
					cvCatherina.13478	-1.80e+308 **
Metabolism of cofactors and vitamins	**Thiamine metabolism**	map00730	1	4	cvCatherina.15787	-7.22
					cvCatherina.7027	-1.79
					cvCatherina.3901	-0.43
					cvCatherina.10835	-1.04
	Porphyrin and chlorophyll metabolism	map00860	2	3	cvCatherina.17541	-1.46
					cvCatherina.13605	2.35
					cvCatherina.5689	2.82
	Vitamin B6 metabolism	map00750	1	1	cvCatherina.6526	2.61
Biosynthesis of other secondary metabolites	**Phenylpropanoid biosynthesis**	map00940	1	5	cvCatherina.3325	0.20
					cvCatherina.12438	1.36
					cvCatherina.13321	1.22
					cvCatherina.5224	1.84
					cvCatherina.473	-1.80e+308 **
	Betalain biosynthesis	map00965	1	1	cvCatherina.4172	0.61
	Flavonoid biosynthesis	map00941	1	1	cvCatherina.17817	-0.77
Nucleotide metabolism	**Purine metabolism**	map00230	2	4	cvCatherina.15787	-7.22
					cvCatherina.7027	-1.79
					cvCatherina.3901	-0.43
					cvCatherina.10835	-1.04
Energy metabolism	Nitrogen metabolism	map00910	2	1	cvCatherina.3411	-1.09
	Oxidative phosphorylation	map00190	2	1	cvCatherina.2830	0.82
	Carbon fixation pathways in prokaryotes	map00720	1	1	cvCatherina.6267	-0.37
Environmental information processing, signal transduction	Phosphatidylinositol signaling system	map04070	1	1	cvCatherina.7529	0.50