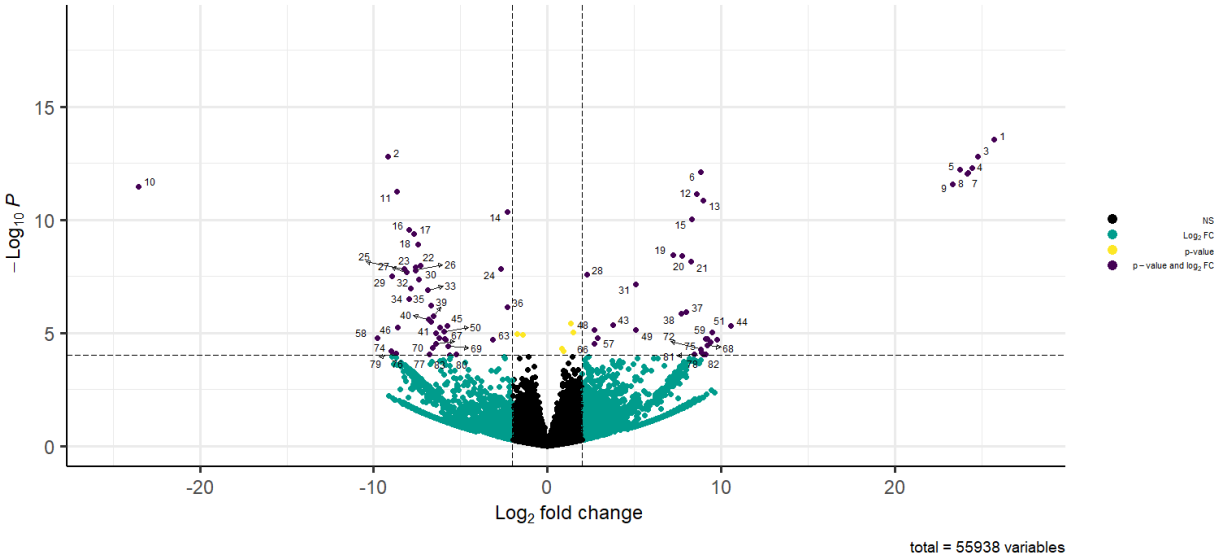

Figure S1. Volcano plot showing genes with differential expression between CH-I and CH-VI genotypes during FFT

Table S1. total sequences reads before and after to trimming.

Total sequences reads before to trimming	9124653
Total sequences reads after to trimming	7735689

Table S2. Genes with differential expression between genotypes. Name shown according to Uniprot nomenclature, GO terms in biological process, molecular function, and cellular component categories.

	Gene	Biological process	Molecular function	Cellular component
1	***VpPPDK2***	Pyruvate metabolic process, photosynthesis, phosphorylation, regulation of flower development, RNA methylation, RNA processing	Pyruvate phosphate dikinase activity, kinase activity, ATP binding, metal ion binding, RNA methyltransferase activity, RNA binding	Chloroplast stroma, nucleus, cytosol
3	***VpPLAT1***			Cytoplasm, integral

				component of membrane
4	***VpBHLH130***	Regulation of transcription by RNA polymerase II, photoperiodism flowering	Protein dimerization activity, RNA polymerase II cis-regulatory region sequence-specific DNA binding, DNA-binding transcription factor activity RNA polymerase II-specific	Nucleus
5	***VpRAD23***	Proteasome-mediated ubiquitin-dependent protein catabolic process, nucleotide-excision repair, proteasome-mediated ubiquitin-dependent protein catabolic process, nucleotide-excision repair, protein transport	Polyubiquitin modification-dependent protein binding, ubiquitin binding, damaged DNA binding, proteasome binding, damaged DNA binding, proteasome binding, polyubiquitin modification-dependent protein binding, ubiquitin binding	Nucleoplasm, cytosol, integral component of membrane, nucleus, cytosol, intracellular organelle lumen, organelle lumen
8	***VpUGT73C5***		UDP-glycosyltransferase activity	
9	***VpGT4***		UDP-glycosyltransferase activity	Cytosol
10	***VpSEU***	Negative regulation of transcription by RNA polymerase II, positive regulation of transcription by RNA polymerase II, cellular response to external biotic stimulus, response to silver ion, response to nematode, response to cycloheximide, plant ovule development, regulation of flower development, embryo development ending in seed dormancy, response to hypoxia, response to fungus, response to auxin, response to bacterium, response to oxidative stress, cellular response to DNA damage	RNA polymerase II activating transcription factor binding, transcription corepressor activity, protein heterodimerization activity, DNA binding	Transcription regulator complex, nucleus, intracellular organelle lumen, organelle lumen

		stimulus, cell differentiation		
11	***VpULP1D***	Proteolysis, vegetative to reproductive phase transition of meristem, response to salt stress, peptidyl-lysine modification, protein modification by small protein conjugation or removal	Cysteine-type peptidase activity, isopeptidase activity, endopeptidase activity	Nuclear speck
12	***VpOCT7***	Transmembrane transport, N-methylnicotinate transport, nicotinate transport, phosphate ion transport, carbohydrate transport	Transmembrane transporter activity, ATP binding	Integral component of membrane, plasma membrane
13	***VpNUP107***	mRNA-containing ribonucleoprotein complex export from nucleus, protein import into nucleus, mRNA transport, posttranscriptional tethering of RNA polymerase II gene DNA at nuclear periphery, gene expression, regulation of transcription DNA-templated	Structural constituent of nuclear pore, protein binding	Nuclear pore outer ring, nuclear membrane, integral component of membrane
14	***VpEXPA4***	Plant-type cell wall organization		Cell wall, extracellular region, membrane
15	***VpARP2***	Arp2/3 complex-mediated actin nucleation, multicellular organism development, multidimensional cell growth, trichome morphogenesis	Actin binding, ATP binding, protein-containing complex binding	Cytoskeleton, cytoplasm, protein-containing complex
18	***VpCSE***		Lipase activity, carboxylic ester hydrolase activity	Membrane

19	***VpUSP***	UDP-D-galactose metabolic process, UDP-L-arabinose metabolic process, nucleotide-sugar biosynthetic process, pollen development, response to cadmium ion, UDP-N-acetylglucosamine metabolic process, UDP-glucuronate metabolic process, amino sugar biosynthetic process, UDP-glucose metabolic process	Uridylyltransferase activity	Pollen tube, cytosol, integral component of membrane
20	***VpRRS1***	Ribosome biogenesis, ribosome localization, rRNA-containing ribonucleoprotein complex export from nucleus, establishment of organelle localization, RNA phosphodiester bond hydrolysis endonucleolytic, rRNA metabolic process, ncRNA processing		Nucleus, preribosome large subunit precursor, intracellular organelle lumen, organelle lumen, intracellular non-membrane-bounded organelle, integral component of membrane
21	***VpSDN5***	Nucleic acid phosphodiester bond hydrolysis	Nucleic acid binding, exonuclease activity	Nucleus
22	***VpOFUT15***	Fucose metabolic process, protein phosphorylation	Transferase activity, catalytic activity acting on a protein, ATP binding	Integral component of membrane
23	***VpFLN1***	Phosphorylation, plastid transcription, chloroplast organization, cellular carbohydrate metabolic process	Kinase activity, phosphotransferase activity alcohol group as acceptor, protein self-association	Chloroplast nucleoid, nucleus
25	***VpPII-2***	Response to symbiotic fungus, protein phosphorylation, biological process involved in symbiotic	Protein threonine kinase activity, protein serine kinase activity, electron transfer activity	Integral component of membrane, plasma membrane

		interaction, electron transport chain		
26	***VpRS40***	mRNA splicing via spliceosome, regulation of alternative mRNA splicing via spliceosome	RNA binding	Spliceosomal complex, nuclear speck, integral component of membrane
27	***VpLEA14***	Response to desiccation		Cytosol, integral component of membrane
28	***VpCCA1***	Green leaf volatile biosynthetic process, regulation of circadian rhythm, circadian rhythm, negative regulation of transcription DNA-templated	DNA binding, regulatory region nucleic acid binding	Nucleus
29	***VpNUP107***	mRNA-containing ribonucleoprotein complex export from nucleus, protein import into nucleus, mRNA transport, posttranscriptional tethering of RNA polymerase II gene DNA at nuclear periphery, gene expression, regulation of transcription DNA-templated	Structural constituent of nuclear pore, protein binding	Nuclear pore outer ring, nuclear membrane, integral component of membrane
31	***VpCOL2***	Regulation of post-embryonic development, regulation of shoot system development, regulation of reproductive process, negative regulation of multicellular organismal process, negative regulation of developmental process, negative regulation of response to stimulus	Zinc ion binding	Nucleus

36	***VpGEML8***			Integral component of membrane
37	***VpLEA141***	Response to desiccation		Cytosol, integral component of membrane
38	***VpSPL16***		DNA binding, metal ion binding	Nucleus
40	***VpMIS3***	rRNA processing, rRNA processing	RNA binding, RNA binding	Nucleolus, small-subunit processome, nucleolus, small-subunit processome, integral component of membrane
42	***VpHCF173***	Photosystem II assembly, translational initiation	Protein binding, mRNA binding	Chloroplast membrane, chloroplast stroma, photosystem II, chloroplast thylakoid membrane
43	***VpHOS3***	Fatty acid biosynthetic process, very long-chain fatty acid metabolic process, sphingolipid biosynthetic process	Very-long-chain 3-ketoacyl-CoA synthase activity, 3-oxo-lignoceronyl-CoA synthase activity, 3-oxo-arachidoyl-CoA synthase activity, 3-oxo-cerotoyl-CoA synthase activity, fatty acid elongase activity, protein binding, ligase activity	Integral component of endoplasmic reticulum membrane, chloroplast membrane, plasma membrane
44	***VpPER5***	Response to oxidative stress, cellular oxidant detoxification	Peroxidase activity, heme binding, metal ion binding	
45	***VpY4345***	Protein phosphorylation	Protein serine/threonine kinase activity, ATP binding	Integral component of membrane
46	***VpABCG37***	Transmembrane transport	ATPase-coupled transmembrane transporter activity, ATP binding	Integral component of membrane
48	***VpGLR28***	Ion transmembrane transport, G protein-coupled receptor	Ligand-gated ion channel activity, signaling receptor activity, RNA-DNA hybrid	Integral component of membrane,

		signaling pathway, ionotropic glutamate receptor signaling pathway, RNA phosphodiester bond hydrolysis endonucleolytic	ribonuclease activity, nucleic acid binding	plasma membrane, cell junction
51	***VpYGI3***		Transferase activity transferring glycosyl groups	
53	***VpPUB62***			Integral component of membrane
55	***VpHMT2***	Methylation, methionine biosynthetic process, S-methylmethionine cycle	Betaine-homocysteine S-methyltransferase activity, zinc ion binding, S-adenosylmethionine-homocysteine S-methyltransferase activity	Integral component of membrane
58	***VpRH40***	Nuclear-transcribed mRNA catabolic process nonsense-mediated decay, rRNA processing	Helicase activity, ATP binding, nucleic acid binding, catalytic activity acting on RNA	Vacuole, ribonucleoprotein complex, nucleus, integral component of membrane
59	***VpUBP17***	Protein deubiquitination, ubiquitin-dependent protein catabolic process, protein phosphopantetheinylation	Thiol-dependent ubiquitin-specific protease activity, cysteine-type peptidase activity, endopeptidase activity	Cytosol, nucleus, integral component of membrane
61	***VpBXL4***	Carbohydrate metabolic process, cell wall macromolecule catabolic process, carbohydrate metabolic process, cell wall macromolecule catabolic process, systemic acquired resistance	Hydrolase activity hydrolyzing O-glycosyl compounds, hydrolase activity hydrolyzing O-glycosyl compounds	Extracellular region, plant-type cell wall, extracellular region, plant-type cell wall, membrane
63	***VpTHIC***	Thiamine-containing compound biosynthetic process, thiamine	Carbon-carbon lyase activity, 4 iron 4 sulfur cluster binding, metal ion binding, protein domain specific binding	Chloroplast stroma, integral component of membrane

		metabolic process, response to vitamin B1		
65	***VpY1342***		Metal ion binding	Integral component of membrane
66	***VpCDF2***	Regulation of transcription DNA-templated	DNA binding, DNA-binding transcription factor activity	Nucleus
69	***VpAPC7***	Metaphase/anaphase transition of mitotic cell cycle, positive regulation of mitotic metaphase/anaphase transition, anaphase-promoting complex-dependent catabolic process, protein ubiquitination, cell division	Protein binding	Anaphase-promoting complex, cytoplasm, thylakoid
70	***VpRMA1***	ER-associated misfolded protein catabolic process, ubiquitin-dependent protein catabolic process, protein ubiquitination, inductive cell migration, molting cycle collagen and cuticulin-based cuticle, striated muscle cell development	Ubiquitin-like protein conjugating enzyme binding, metal ion binding, ubiquitin protein ligase activity, ligase activity, transferase activity transferring acyl groups	Integral component of membrane, striated muscle dense body, nucleus, cell junction
73	***VpNIP3-1***	Transmembrane transport, cellular response to boron-containing substance levels, borate transport, water transport, response to arsenic-containing substance, arsenite transport	Channel activity, active borate transmembrane transporter activity, water transmembrane transporter activity, arsenite transmembrane transporter activity	Integral component of membrane, lateral plasma membrane
74	***VpCAMTA3***	Regulation of transcription by RNA polymerase II, cellular response to aluminum ion, response to cold, positive regulation of	Calmodulin binding, DNA binding, transcription coregulator activity, sterol esterase activity, phospholipase A2 activity (consuming 12-dipalmitoylphosphatidylcholine),	Nucleus, integral component of membrane, nucleus

		transcription DNA-templated, regulation of transcription by RNA polymerase II	phospholipase A2 activity consuming 12-dioleoylphosphatidylethanolamine), 1-acylglycerol-3-phosphate O-acyltransferase activity, phospholipase A2 activity, triglyceride lipase activity, regulatory region nucleic acid binding, DNA-binding transcription factor activity, calmodulin binding, DNA binding, transcription coregulator activity	
75	***VpE138***	Carbohydrate metabolic process, defense response, sulfate assimilation, phosphorylation	Glucan endo-13-beta-D-glucosidase activity, adenylylsulfate kinase activity, ATP binding	Anchored component of plasma membrane, integral component of membrane
76	***VpALA1***	Lipid translocation, phospholipid transport, lipid translocation, phospholipid transport	ATPase-coupled intramembrane lipid transporter activity, magnesium ion binding, ATP binding, ATPase-coupled intramembrane lipid transporter activity, magnesium ion binding, ATP binding	Integral component of membrane, plasma membrane, integral component of membrane, plasma membrane
78	***VpKIPK1***	Phototropism, gravitropism, protein phosphorylation	Protein kinase activity, ATP binding	
79	***VpYIE2***	Phosphatidylinositol phosphorylation	1-phosphatidylinositol-3-phosphate 5-kinase activity, metal ion binding, ATP binding	Integral component of membrane
81	***VpMIS31***	rRNA processing	RNA binding	Nucleolus, small-subunit processome, integral component of membrane
82	***VpUBC2***	Protein polyubiquitination, histone ubiquitination, proteasome-mediated ubiquitin-dependent	Ubiquitin conjugating enzyme activity, ATP binding, ubiquitin activating enzyme activity, transferase activity transferring acyl groups	, cytoplasm

		protein catabolic process, DNA repair, vegetative to reproductive phase transition of meristem		
83	***VpBBX21***	Photomorphogenesis, regulation of transcription DNA-templated, positive regulation of photomorphogenesis, negative regulation of brassinosteroid mediated signaling pathway, response to chitin, response to karrikin, response to brassinosteroid	Zinc ion binding, transcription regulatory region sequence-specific DNA binding, protein binding, DNA-binding transcription factor activity	Nucleus