

**Table S8 Differentially methylated regions in photosynthetic hubgenes.**

Comparison	Chr	Start	End	Context	Fold change	Regulated	DMR ID	DMR-associated Genes	Genomic Feature
S vs. NW	Chr10	18002801	18002950	CHH	28.02	hyper	<i>PtoLHCA1</i> -DMR1	<i>PtoLHCA1</i>	Promoter
S vs. NE	Chr10	18002801	18002950	CHH	28.02	hyper	<i>PtoLHCA1</i> -DMR1	<i>PtoLHCA1</i>	Promoter
S vs. NW	Chr12	7788951	7789100	CG	50.11	hyper	<i>PtoPnsB4</i> -DMR1	<i>PtoPnsB4</i>	Promoter
S vs. NE	Chr12	7788951	7789100	CG	55.71	hyper	<i>PtoPnsB4</i> -DMR1	<i>PtoPnsB4</i>	Promoter
S vs. NE	Chr12	7793051	7793150	CG	53.33	hyper	<i>PtoPnsB4</i> -DMR2	<i>PtoPnsB4</i>	Downstream
S vs. NW	Chr12	7793501	7793650	CHG	35.27	hyper	<i>PtoPnsB4</i> -DMR3	<i>PtoPnsB4</i>	Downstream
S vs. NE	Chr12	7793501	7793650	CHG	33.08	hyper	<i>PtoPnsB4</i> -DMR3	<i>PtoPnsB4</i>	Downstream
S vs. NE	Chr10	18002001	18003500	CHH	22.61	hyper	<i>PtoLHCA1</i> -DMR1	<i>PtoLHCA1</i>	Promoter
S vs. NW	Chr18	13397701	13397950	CHH	10.68	hyper	<i>PtoMPH1</i> -DMR1	<i>PtoMPH1</i>	Promoter
NW vs. NE	Chr18	13398851	13398950	CHH	15.91	hyper	<i>PtoMPH1</i> -DMR2	<i>PtoMPH1</i>	Promoter
S vs. NW	Chr1	46476401	46476550	CG	43.86	hyper	<i>PsiPSBR</i> -DMR1	<i>PsiPSBR</i>	Promoter
S vs. NW	Chr1	46477151	46477250	CHH	-16.15	hypo	<i>PsiPSBR</i> -DMR2	<i>PsiPSBR</i>	Promoter