

Supplementary Table S4. The evaluation results of the classification model of SWIR.

			NM	PC	PCS	PN	S
PLS-DA	Precision	P.M.P	0.709	0.872	0.674	0.633	0.807
		Thres: 0.5	1	0.976	0	0.623	1
	Recall	P.M.P	0.388	0.688	0.202	0.407	0.48
		Thres: 0.5	0.002	0.337	0	0.163	0.012
	Accuracy	P.M.P	0.615	0.794	0.552	0.585	0.683
		Thres: 0.5	0.501	0.664	0.5	0.532	0.506
	FPR	P.M.P	0.159	0.101	0.098	0.236	0.115
		Thres: 0.5	0	0.008	0	0.099	0
	F1 score	P.M.P	0.502	0.769	0.31	0.495	0.602
		Thres: 0.5	0.003	0.501	0	0.259	0.023
XGBoost	Precision	P.M.P	0.987	0.994	0.985	0.99	0.989
		Thres: 0.5	0.989	0.994	0.986	0.992	0.989
	Recall	P.M.P	0.978	0.977	0.948	0.938	0.947
		Thres: 0.5	0.978	0.973	0.943	0.932	0.947
	Accuracy	P.M.P	0.983	0.985	0.967	0.965	0.968
		Thres: 0.5	0.984	0.984	0.965	0.962	0.968
	FPR	P.M.P	0.013	0.006	0.015	0.009	0.01
		Thres: 0.5	0.011	0.005	0.013	0.008	0.01
	F1 score	P.M.P	0.983	0.985	0.966	0.964	0.967
		Thres: 0.5	0.983	0.984	0.964	0.961	0.967

NM: non-mulching, PCs: crushed pinecones, PCS: a mixture of crushed pinecones and sulfur, PNs: pine needles, and S: sulfur treatment.