

Table S8. Variance analysis of root length, area and volume ratio of different root diameter class (<2, 2-5, >5 mm) to total root of four provenances of *X. sorbifolium* seedlings.

		Source of variation	Sum of Squares	df	Mean Square	F	Sig.
Ratio of different root diameter class to total root length (%)	Diameter<2 mm	Between Groups	286.396	3	95.465	3.348	0.046
		Within Groups	456.275	16	28.517		
		Total	742.671	19			
	2 mm≤Diameter<5 mm	Between Groups	312.541	3	104.180	3.449	0.042
		Within Groups	483.311	16	30.207		
		Total	795.853	19			
	Diameter≥5 mm	Between Groups	3.660	3	1.220	0.146	0.931
		Within Groups	133.801	16	8.363		
		Total	137.461	19			
	Total root length (cm)	Between Groups	3.054	3	1.018	2.319	0.114
		Within Groups	7.023	16	0.439		
		Total	10.077	19			
Ratio of different root diameter class to total root area (%)	Diameter<2 mm	Between Groups	459.548	3	153.183	0.441	0.727
		Within Groups	5557.509	16	347.344		
		Total	6017.057	19			
	2 mm≤Diameter<5 mm	Between Groups	1116.498	3	372.166	1.055	0.396
		Within Groups	5644.422	16	352.776		
		Total	6760.920	19			
	Diameter≥5 mm	Between Groups	202.845	3	67.615	0.158	0.923
		Within Groups	6865.338	16	429.084		
		Total	7068.184	19			
	Total root area (cm²)	Between Groups	6910.660	3	2303.553	1.424	0.273
		Within Groups	25888.818	16	1618.051		
		Total	32799.478	19			
Ratio of different root diameter class to total root	Diameter<2 mm	Between Groups	603.501	3	201.167	0.383	0.766
		Within Groups	8395.587	16	524.724		
		Total	8999.087	19			
	2 mm≤Diameter<5 mm	Between Groups	996.540	3	332.180	0.383	0.766
		Within Groups	13868.582	16	866.786		
		Total	14865.122	19			

volume (%)	Diameter≥5 mm	Between Groups	469.030	3	156.343	0.119	0.948
		Within Groups	21007.350	16	1312.959		
		Total	21476.379	19			
	Total root volume (cm³)	Between Groups	8.892	3	2.964	0.304	0.822
		Within Groups	155.760	16	9.735		
		Total	164.653	19			

Sig.<0.05 indicates significant differences; Sig.<0.01 indicates very significant differences.